



34th International Geological Congress (IGC): AUSTRALIA 2012

Unearthing Our Past And Future – Resourcing Tomorrow

Brisbane Convention and Exhibition Centre
Queensland, Australia

5 - 10 August, 2012 | www.34igc.org

34th IGC CIRCULARS

General distribution of this and subsequent Circulars for the 34th IGC is by email. The latest Circular is always available for download at www.34igc.org. The Fourth Circular is scheduled for release in December 2011.

THIRD CIRCULAR and REGISTRATION BROCHURE



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and other highlights “downunder”

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Message from the President and Secretary General

With the release of this Third Circular another milestone in the organisation and development of the 34th IGC is achieved.

This Circular announces important information that delegates will need to plan and arrange their participation at the 34th IGC in Brisbane:

- The full schedule of registration fees is released in this circular and delegates may now register using the online registration system at www.34igc.org;
- Accommodation rates and arrangements are also released in this circular and delegates can now reserve their accommodation in Brisbane when they complete their registration forms;
- Expanded field trip information is now available, including the full dates of each tour. Tour bookings are now also available.

Major progress has been made with the scientific program with the announcement of the plenary speakers in this circular as well as information on professional development workshops and short courses and an updated scientific program.

The Organising Committee is very much aware of the economic challenges facing many delegates and every effort has been made to keep registration fees as low as possible. We invite all in the international geoscience community to accept our invitation to the 34th IGC – this is a once in a lifetime opportunity to come “downunder” to participate in an exciting scientific program covering the breadth of the geosciences, to experience fascinating geological features in the field, to network with the cream of the international geoscience community, and to hold your business meetings. Whether you are from industry, government or academia, you will find a full and interesting program within the 34th IGC, which represents good value for money.

We must again thank most sincerely the many members of the geoscientific community around the world who have contributed greatly to the organisation of the 34th IGC.

We sincerely hope that you will be able to join us for the 34th IGC and we look forward to welcoming you to Brisbane and Australia in August, 2012.

Neil Williams
PRESIDENT, 34th IGC

Ian Lambert
SECRETARY GENERAL, 34th IGC



Message from the Assistant Director General, Unesco

The theme of the 34th International Geological Congress, Unearthing our Past and Future - Resourcing Tomorrow, strikes at the heart of our relationship with the earth: the very evolution of human life and the development of human cultures into the future. UNESCO is proud to demonstrate our support for this important endeavour by granting our patronage to the 34th IGC. We are convinced of the critical relevance of earth sciences for society, from mitigating the risks of geohazards to planning the sustainable use of resources for energy and innovation. UNESCO and IUGS look forward to celebrating the 40th anniversary of the International Geoscience Programme (IGCP) in Brisbane, Australia.

Dr Gretchen Kalonji
HEAD OF NATURAL SCIENCES PROGRAM

34th IGC Organising Committee

President
Secretary General
Deputy Secretary Generals

Scientific Program Chair
Finance Committee Chair
Field Trips Committee Chair
Sponsorship Committee Chair

Committee Members

Observers

Neil Williams
Ian Lambert
Paul Kay
Paulo Vasconcelos
Lynton Jaques
Miriam Way
David Mason
Ashley Gordon

Mark Berry
Hamish Campbell
David Denham
Geoff Dickie
Maurie Drew
Jonathan Gordon
Michael Leggo
Alex Malahoff
Robert Murdoch
Gabriella Perlingeiro
Colin Simpson
Michael Smith

George Gibson
Robert Day
Suzy Domitrovic
Sandra Passario
Alf Simpson

University of Wollongong
Geoscience Australia
Geoscience Australia
University of Queensland
Australian National University
AusIMM
Geological Survey of Queensland
Carillon Conference Management

Australian Institute of Geoscientists
GNS Science (New Zealand)
ASEG
Queensland Resources Council
Petroleum Exploration Society of Australia
Carillon Conference Management
Australia Geoscience Council
GNS Science (New Zealand)
Consultant
University of Queensland
IUGS
Australian Geoscience Council

Geoscience Australia
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Geoscience Australia
Queensland Events
Consultant

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Important Dates

1 November 2011	GeoHost support scheme applications close
December 2011	Fourth Circular released
17 February 2012	Abstract submissions close
31 March 2012	Field trip bookings close
30 April 2012	Earlybird registrations close (standard rate commences)
	Presenters registration deadline
5 June 2012	Accommodation reservations to be made by this date
July 2012	Fifth Circular – Final Program

Pre Congress 30 July to 4 August 2012	Sunday 5 August	Monday 6 August	Tuesday 7 August	Wednesday 8 August	Thursday 9 August	Friday 10 August	Post Congress 11 to 17 August 2012
34th International Geological Congress							
IGC GeoHost Training Workshops	IUGS-IGC Council Meeting Day 1	Opening Ceremony			IUGS-IGC Council Meeting Day 2		IGC Professional Development Workshops and Courses
IGC Professional Development Workshops and Courses	Last day of Pre Congress IGC GeoHost Training Workshops	Scientific Program: 8.30am to 6.00pm	Scientific Program: 8.30am to 6.00pm	Scientific Program: 8.30am to 6.00pm	Scientific Program: 8.30am to 6.00pm	Scientific Program: 8.30am to 3.45pm	
IGC Field Trips	Afternoon: Delegate Registration Evening: Welcome Reception				Evening: Congress Dinner	Afternoon: Closing Ceremony	IGC Field Trips



Relationship Between the International Geological Congress (IGC) and the International Union of Geological Sciences (IUGS)

The IGC, which was founded in 1876, is the pre-eminent global geoscience congress – it provides a forum for presenting scientific results across the whole spectrum of the geosciences, facilitates the holding of business meetings, encourages international networking and provides the opportunity to study geological features of interest through field trips. Each IGC has had its own flavour and features, reflecting the circumstances in the host region and what it sees as important for such a large and prestigious event.

The IUGS (www.iugs.org) was created in 1961 to address global geological issues during the period between the IGCs. The IUGS promotes and encourages the study of geological problems, especially those of world-wide significance, and supports and facilitates international and interdisciplinary cooperation in the earth sciences. It is a legal entity, with elected office bearers, formally recognised Adhering Organisations which pay annual dues and Affiliated Organisations, a Secretariat, Commissions, Task Groups, Initiatives, and Joint Programs. Further information and office bearers are available at www.34igc.org, via the IGC and IUGS tab. The IGC-IUGS interaction has been positive for the geosciences. Whereas the IGC is the major scientific forum of the IUGS, it is not owned by the IUGS or any other body.

Until 2004, the IUGS reported to its Council comprising nominated representatives from the 122 nations that adhere to the Union. The IGC, in turn reported to its own Council, which was slightly wider in scope because it included representatives of all countries attending an IGC. This situation was rationalised at the Florence IGC where the two Councils were officially merged.

IGC Committee

The IGC Committee (IGCC), which comprises Presidents and Secretary Generals of the past and pending IGCs as well as the Bureau members of the IUGS, looks after the ongoing interests of the IGC. In general, it has had two face-to-face meetings between recent IGCs, as well as meeting during each IGC.

The IUGS-IGC Council, enlarged to include the IGCC members, entrusts a selected partner country to organise an IGC, and that country thus bears the financial cost and assumes the responsibility to organize all the human resources and facilities. The IGCC maintains an appropriate level of communication with the Local Organising Committee for each IGC.

Current IGCC Members: Alberto Riccardi (joint chair), Arne Bjorlykke (joint chair), Ian Lambert (Secretary General), Neil Williams, Peter Bobrowsky, William Cavazza, Anders Solheim, Ernesto Abbate and Carlos Oití Berbert.



Recent developments

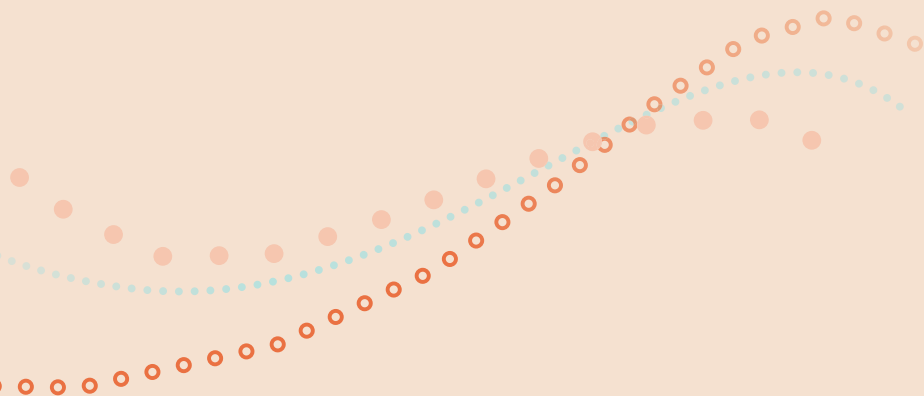
For the first time in the history of the IGC, a Memorandum of Understanding has been completed between the legal entity hosting the 34th IGC – the Australian Geoscience Council – and the IUGS. This sets out the general responsibilities of the host organisation, the IUGS and the IGCC, including the capitation fee to be paid by the Congress to the IUGS.

At the June 2010 meeting of the IGCC in Brisbane, the decision was taken to limit the duration of the scientific program of the 34th IGC to 5 days – several days shorter than most previous IGCs. This decision reflected increasing time pressures on many delegates in the modern world and the high daily costs for venue hire. The large number of rooms available for concurrent sessions in the Brisbane Convention and Exhibition Centre and raised expectations for streamlined meeting arrangements made this possible.

The 34th IGC will be held under the IGC Statutes that were in force for the 32nd IGC, held in Florence in August 2004; these can be accessed through the IGC and IUGS tab at www.34igc.org. The separate Statutes of the IUGS and IGC are currently being streamlined by an IUGS/IGC statutes and bye-laws committee to reflect the merger of Councils. The revised statutes will be considered by the combined Council at the 34th IGC.

Appointment of official delegates to the Joint IGC-IUGS Council

IUGS Adhering Organisations appoint delegates in accordance with countries or regions to represent them at the joint IUGS and IGC Council. Where no IUGS Adhering Organisation exists, IGC National Committees or other appropriate authorities of participating countries may appoint delegates, in accordance with article 5.7 of the Statutes of the IGC, to represent them at the joint IUGS and IGC Council. The delegates sit for the duration of the Congress.



Congress Registration Fees

To register for the 34th IGC, please visit www.34igc.org and select the CONGRESS REGISTRATION option. You may register using the online system or download a registration form.

Registration Type	Early Bird Paid by 30 April 2012	Standard Paid after 30 April but before 15 July 2012	Late Paid after 15 July 2012
Full Registration – Members	\$995	\$1150	\$1450
Full Registration – Non Members	\$1195	\$1350	\$1750
Student Delegate (see student definition below)	\$550	\$ 550	\$625
Young Earth Scientists (YES) Delegate (see YES delegate definition below)	\$795	\$795	\$895
Accompanying Persons Registration	\$155	\$175	\$195
Optional Events (at extra cost)			
Welcome Reception Guest Ticket	\$55	\$55	\$55
Congress Dinner	\$125	\$125	\$125

About Registration Fees:

- The fees are shown in Australian Dollars (AUD) and include Goods and Services Tax (10%);
- Full payment of registration fees must accompany your registration. Registrations cannot be acknowledged or processed without full payment;
- The Accompanying Persons registration fee is available only to partners and/or family members of a paid delegate registered to attend the Congress as a Full, YES or Student delegate. The Accompanying Persons program is subject to minimum numbers.

Registration Inclusions:

- Congress materials including handbook and proceedings and access to Congress sessions;
- One ticket to the Congress Welcome Reception on Sunday 5 August 2012. Extra tickets can be purchased at \$55 per person for guests;
- Morning and afternoon refreshments and lunch each day as per Congress program;
- The Congress dinner is an optional extra cost function (\$125). It is not included in registration fees.
- The Accompanying Persons registration includes name badge, one ticket to the welcome reception, and a city tour on Tuesday 7 August. It does not include access to any Congress sessions.

Definitions:

- ‘Member’ is defined as any member of any national Geological organisation worldwide;
- ‘Student’ is a person enrolled in a recognised tertiary course as a full time student and who is not engaged in full time employment. A copy of a current student photo-ID card and a supporting letter from your Head of School or course supervisor confirming course and full time student status must be provided prior to the Congress.
- ‘Young Earth Scientist’ is a person who is under the age of 35 and is a registered member of the Young Earth Scientists network. YES membership number must be provided with registration.



Accommodation In Brisbane

Discounted accommodation rates have been negotiated for IGC delegates at an extensive range of hotels and accommodation establishments in central Brisbane. The selection of hotels, room types and rates are shown in the tables on the previous pages.

You can book your accommodation when you register for the Congress using the online system or the downloadable registration form.

There is heavy demand for accommodation in Brisbane and delegates are urged to book accommodation as soon as possible. Delegates are cautioned against expecting lower rates to be available for late bookings on internet accommodation sites. Due to demand for accommodation in Brisbane, rates on such sites are often higher, particularly for rooms mid-week and availability is very limited.

About accommodation reservations

- The rates shown on the previous pages are available only to 34th IGC delegates who make their accommodation reservation request on their Congress Registration form;
- All rates quoted are expressed in Australian Dollars (AUD) and apply per room per night and include GST (Goods and Services Tax). Unless otherwise stated, breakfast is not included.
- The rates shown are applicable for reservation requests received by 5 June 2012. Availability of rooms is not guaranteed for reservations received after 5 June and higher rates may apply.

Hostel-style accommodation

Hostel-style accommodation is available at the following establishments – both are located within comfortable walking distance of the IGC venue, Brisbane Convention and Exhibition Centre. Please contact the hostels direct for information and reservations:

Chill Backpackers

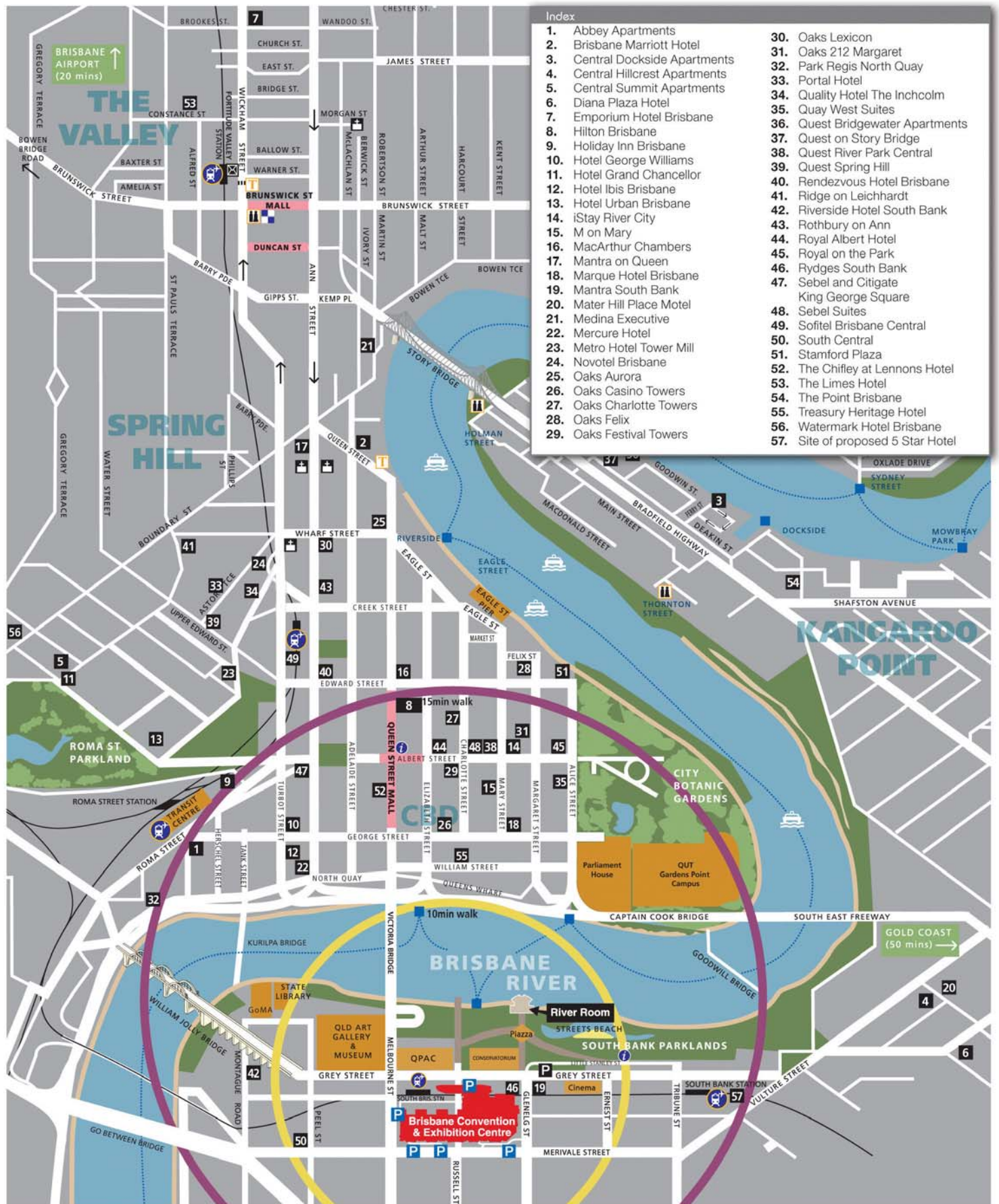
www.chillbackpackers.com

info@chillbackpackers.com

Brisbane City Backpackers

www.citybackpackers.com

info@citybackpackers.com



Official Congress Hotels

Deluxe ★★★★★ Hotels		
Hilton Brisbane, 190 Elizabeth St, Brisbane CBD The Hilton Brisbane hotel is located just 400 yards from Central Station and is within walking distance of several Brisbane attractions including South Bank parklands, Gallery of Modern Art, Queensland Art Gallery, Brisbane Convention and Exhibition Centre and Queensland Performing Arts Complex.	King Hilton Deluxe Room	\$299
	Executive Room	\$375
Stamford Plaza, Corner of Margaret & Edward Streets, Brisbane CBD Stamford Plaza Brisbane hotel, one of the city's most prestigious and recognisable landmarks, comprises 252 luxuriously appointed guestrooms over 22 floors, and is nestled between the banks of the Brisbane River and the Botanic Gardens.	Superior Room	\$290
Treasury Casino and Hotel, Top of the Queen St Mall, Brisbane CBD Treasury Brisbane is at the top of the Queen St Mall within metres of the Queen Street Shopping Mall and walking distance to the Brisbane Convention and Exhibition Centre, City Cat ferry terminal, South Bank Parklands and the Performing Arts Complex.	Deluxe Room	\$320
	Parlour King	\$430
Sofitel Brisbane, 249 Turbot St, Brisbane CBD Sofitel Brisbane Central is conveniently located in the centre of Queensland's new world city, Brisbane. The luxury property offers direct access to Central Station, providing convenient transport to domestic and international airports.	Superior Room	\$320
	Luxury Room	\$380
Marriott Brisbane, 515 Queen St, Brisbane CBD The Brisbane Marriott Hotel combines elegance and refined luxury to offer every guest an intimate and genuinely warm experience. One of Brisbane's finest five star hotels with 267 rooms, is perfectly positioned overlooking the Brisbane River.	Deluxe City View Room	\$299
Superior ★★★★★ ^{1/2} Hotels		
Novotel Brisbane, 200 Creek St, Brisbane CBD Novotel Brisbane offers guests 4.5 star accommodation in 296 contemporary guest rooms and suites in the heart of Brisbane. Located next to Central Station, the CBD and Queen Street Mall.	Standard Room	\$239
Royal on the Park, Cnr Alice & Albert Sts, Brisbane CBD Royal on the Park is located perfectly in the Brisbane CBD overlooking the City Botanic Gardens, within easy walking distance to the city centre, South Bank and the Brisbane Convention and Exhibition Centre.	Deluxe Room	\$205
	Spa Suite	\$355
	Executive Spa	\$405
Hotel Grand Chancellor, 23 Leichhardt St (Cnr Wickham Terrace), Brisbane CBD The 4.5 star Hotel Grand Chancellor Brisbane is situated on the highest point in Brisbane's central business district. Opposite the picturesque Roma Street Parklands and a short walk will lead you into the heart of the city.	Standard Twin Room	\$225
	Superior Queen Room	\$255
Sebel/Citigate King George Square, Cnr Ann & Roma Sts, Brisbane CBD Stylish Brisbane accommodation located within walking distance of the Queen St Mall shopping precinct and is conveniently situated in the CBD close to Southbank, Roma Street Station and the Brisbane Convention Centre.	Sebel Deluxe Room	\$265
	Citigate Superior Room	\$245
Rendezvous Hotel Brisbane, 255 Ann St, Brisbane CBD Rendezvous Hotel Brisbane is superbly located in the CBD, a mere 100 metres from the vibrant Queen Street Mall - Brisbane's shopping and entertainment precinct - and a short stroll to the popular Southbank Parklands and Treasury Casino.	Studio	\$255
	1 Bedroom Apartment	\$295

Official Congress Hotels (cont.)

First Class ★★★★★ Hotels		
Mantra South Bank, 161 Grey St, South Bank Mantra South Bank sits opposite the Brisbane Convention & Exhibition Centre and is within walking distance of public transport, including buses, trains and the famous Brisbane River City-Cats.	Studio Room	\$279
	Studio City View Room	\$309
	1 Bedroom Apartment	\$324
	1 Bedroom City View Apt	\$354
	2 Bedroom	\$476
Rydges South Bank, 9 Glenelg St, South Bank Rydges South Bank is joined to the Brisbane Convention & Exhibition Centre (BCEC) via a walkway. The hotel is also just a short walk from bus and train stations and across the road from South Bank Parklands.	Standard Queen	\$274
	Superior Room	\$294
	1 Bedroom Suite	\$314
Chifley at Lennons, 66 Queen St Mall, Brisbane CBD Located on the Queen Street Mall in the heart of the Brisbane City, Chifley at Lennons Hotel Brisbane is a four star superior hotel offering a high standard of accommodation and services for both the corporate and leisure markets. Just a short stroll away you will find the Brisbane Convention & Exhibition Centre	Deluxe Room	\$260
	Executive Suite	\$310
Mercure Brisbane, 85-87 North Quay, Brisbane CBD Mercure Brisbane is conveniently located across the Brisbane River in the Brisbane CBD. This hotel is only a stone's throw away from the renowned cultural Precinct of South Bank Parklands and Brisbane Convention & Exhibition Centre.	Standard Room	\$219
Holiday Inn, 159 Roma St, Brisbane CBD Holiday Inn Brisbane is a perfect destination to take advantage of all that Brisbane has to offer. Conveniently located adjacent to the Brisbane Transit Centre, Roma St. Parkland and only a short walk to the central business district, Southbank and Brisbane Convention & Exhibition Centre.	Guest Room	\$249
Hotel Urban Brisbane, 345 Wickham Terrace, Brisbane CBD Situated close to Brisbane's city centre, Urban Brisbane has just finished a \$10 million refurbishment, producing an impressive, architecturally-designed space which features stunning views of the city skyline.	Superior Room	\$215
Marque Hotel, 103 George St, Brisbane CBD Located on George St, adjacent to the Treasury Casino and just a minute's walk to the Brisbane River, the hotel's central location makes it the ideal location and base to explore some of the city's best attractions. Local attractions include the Brisbane River, Queen Street Mall and Brisbane Convention & Exhibition Centre.		
First Class ★★★★★ Serviced Apartments		
Oaks 212 Margaret, 212 Margaret St, Brisbane CBD Adjacent to the Botanical Gardens, overlooking the Brisbane River, and yet only minutes from the CBD, Oaks 212 Margaret is a logical choice for exploring Brisbane's historic centre, entertainment options or when visiting for a conference or event.	1 Bedroom Apartment	\$189
	2 Bedroom Apartment	\$274
Oaks Aurora Towers, 420 Queen St, Brisbane CBD Just minutes from the Oaks Aurora Tower is the CBD, historic attractions, South Bank and the city's myriad cafes, shops, restaurants, theatres and the Brisbane Convention & Exhibition Centre.	1 Bedroom Apartment	\$199
	2 Bedroom Apartment	\$286
Oaks Charlotte Towers, 128 Charlotte St, Brisbane CBD Oaks Charlotte Towers is prime Brisbane accommodation, located within the city's business and financial district within walking distance to the shopping heart of Queen Street Mall and the gentler pace of the City Botanic Gardens.	1 Bedroom Apartment	\$199
	2 Bedroom Apartment	\$280
Oaks Casino Towers, 151 George St, Brisbane CBD Oaks Casino Towers is a 4.5 star apartment hotel located opposite Brisbane's Treasury Casino, boasting impressive views over the city or river.	1 Bedroom Apartment	\$215
	2 Bedroom Apartment	\$278
Oaks Felix, 26 Felix St, Brisbane CBD Oaks on Felix offers 40-storey hotel Brisbane city accommodation in the middle of Brisbane's CBD. Each room showcases the best views in town, taking in the Brisbane city, the Story Bridge, Botanic Gardens, and Kangaroo Point.	1 Bedroom Apartment	\$189
	2 Bedroom Apartment	\$274
Oaks Festival Towers, 108 Albert St, Brisbane CBD Located in a prime position and providing spacious modern design, first class technology and facilities.	1 Bedroom Apartment	\$189
	2 Bedroom Apartment	\$274
Oaks Lexicon, Cnr Ann & Wharf Sts, Brisbane CBD Conveniently located in the heart of the CBD, offering perfect affordable Brisbane accommodation and one of Brisbane's most contemporary buildings.	1 Bedroom Apartment	\$189
	2 Bedroom Apartment	\$274

Official Congress Hotels (cont.)

Intermediate ★★ Hotels and Serviced Apartments		
Hotel Ibis Brisbane, 27-35 Tubot St, Brisbane CBD Ibis Brisbane is conveniently located in the centre of the city, within easy walking distance of the Queen Street Mall shopping precinct, Treasury Casino, South Bank Parklands, Brisbane Convention and Exhibition Centre.	Standard Room	\$189
Riverside Hotel South Bank, 20 Montague Rd, South Bank The Riverside Hotel South Bank is located within the South Bank cultural precinct, home to the Brisbane Convention and Exhibition Centre, Queensland Performing Arts Complex, Museum along with a wide range of restaurants, bars and coffee shops.	Studio Room 1 Bed Apartment	\$170 \$200
Sapphire Resort, 5 Brereton St (Cnr Boundary St), South Brisbane Sapphire Resort is located in South Brisbane and a short walk from the Brisbane Convention Centre, South Bank Parklands and the Museum & Performing Arts.	Standard Room	\$110
Central West End Apartments, 220 Melbourne St, West End Central West End Apartments is situated in the heart of Brisbane's cultural hub, surrounded by vibrant restaurants, cafés and bars with a multitude of entertainment options just minutes away.	Studio Apartment 1 Bedroom Apartment 1 Bedroom Deluxe Apartment 2 Bedroom Apartment	\$174 \$208 \$221 \$298
Central Hillcrest Apartments, 311 Vulture St, South Brisbane Adjacent to the exciting Southbank precinct, Central Hillcrest Apartments offers stunning views of the Brisbane River and city skyline out towards the Story Bridge and is just a short walk to the CBD, major public transport, a range of restaurants, entertainment and shopping.	Hotel Room 1 Bedroom Apartment 2 Bedroom Apartment	\$166 \$200 \$285
Central Cosmo Apartments, 60 Park Rd, Milton (western side of CBD) Perfectly positioned on trendy Park Road in Milton, Central Cosmo Apartments overlooks the charming Brisbane River and is surrounded by a plethora of restaurants, cafes, bars and entertainment options.	Studio Apartment 1 Bedroom Junior 1 Bedroom Superior 2 Bedroom Apartment	\$200 \$221 \$230 \$289
Central Summit Apartments, 32 Leichhardt St, Spring Hill (outer city fringe) Overlooking Brisbane city and the stunning Roma Street Parkland, the newly refurbished Central Summit Apartments are within walking distance to the CBD, major public transport, restaurants, entertainment and shopping.	Studio Apartment 1 Bedroom Apartment 2 Bedroom Apartment	\$190 \$206 \$298
Central Dockside Apartments, 44 Ferry St, Kangaroo Point (eastern suburb next to South Bank) Overlooking the Brisbane River, Story Bridge and stunning city skyline, Central Dockside Apartments is just minutes from the CBD by ferry or taxi, with Brisbane's best restaurants, entertainment and shopping just moments away.	1 Bedroom Apartment 2 Bedroom Apartment	\$221 \$272

Accompanying Persons Program

An Accompanying Persons program is available to partners and family members accompanying registered 34th IGC delegates. The accompanying persons registration fee includes entry for one (1) person to the following:

Sunday, 5 August

- Congress welcome reception (from 6.00pm)

Monday, 6 August

- Official opening ceremony
- Accompanying persons morning tea

Tuesday, 7 August

- Walking tour of Brisbane's cultural precinct, including morning tea

Tickets may also be purchased for accompanying persons to attend the Congress Dinner (Wednesday 8 August), at a cost of \$125 each. Please note that the welcome reception and congress dinner are intended for adults and tickets will not be available to persons under 18 years of age.

A tour desk will be available at the Brisbane Convention and Exhibition Centre and will offer a range of day and half day tours, tickets for which may be purchased by delegates and accompanying persons.



Credits to Zenstick Photography



Scientific Program

Message from the Scientific Program Chair

Welcome to the Scientific Program of the 34th International Geological Congress. The overall theme of Australia 2012, *Unearthing our Past and Future – Resourcing Tomorrow*, reflects the crucial roles the geosciences play in meeting the needs of societies while sustaining the Earth.

A broad scientific program based on 37 Themes has been developed by the Scientific Program Committee and the Scientific Theme Coordinators, with input from International Union of Geological Sciences (IUGS) affiliated groups and individual scientists.

On behalf of the Scientific Program Committee I hope you find the proposed program both interesting and exciting. We hope that the scientific sessions and the plenary presentations and panels will stimulate discussion and interest in your area of science and beyond, recognising the increasing need for interdisciplinary and multidisciplinary approaches to addressing contemporary issues in the geosciences.

In this Circular, we have incorporated some revisions to the program, including the names of confirmed keynote speakers. Ongoing updates will be available through the website: www.34igc.org.

Lynton Jaques

CHAIR, 34TH IGC SCIENTIFIC PROGRAM COMMITTEE

Scientific Program Committee

Lynton Jaques, Committee Chair, Canberra, ACT

Mike Smith, Chair Australian Geoscience Council, Sydney, NSW

Ian Lambert, Secretary General 34th IGC, Canberra, ACT

Mike Archer, University of New South Wales, Sydney, NSW

Mark Berry, Australian Institute of Geoscientists, Brisbane, Queensland

David Denham, Australian Society of Exploration Geophysicists, Canberra, ACT

George Gibson, Geoscience Australia, Canberra, ACT

Andrew Gleadow, University of Melbourne, Melbourne, Victoria

David Lumley, University of Western Australia, Perth, WA

Alex Malahoff, Chief Executive, GNS Science, Lower Hutt, New Zealand

Colin Simpson, Councillor, International Union of Geological Sciences (IUGS), Canberra, ACT

Paulo Vasconcelos, University of Queensland, Brisbane, Queensland

Malcolm Walter, University of New South Wales, Sydney, NSW

Paul Kay, Deputy Secretary General 34th IGC, Canberra, ACT

Draft Program Timetable

The draft Scientific Program for the 34th IGC is outlined in the following table. It will take place over 5 days, commencing with the Opening Session in the morning of Monday 6th August and ending with the Closing Ceremony in the late afternoon Session on Friday 10th August, 2012. Each day will comprise around 35 concurrent Symposia, and a plenary session from 1pm-2pm (1300-1400 hours).

Most business meetings will be held in the evening after 7pm, 6-9 August.

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
0830-1015	Opening Ceremony	Scientific Program Session 4	Scientific Program Session 8	Scientific Program Session 12	Scientific Program Session 16
1015-1045	Break Posters	Break Posters	Break Posters	Break Posters	Break Posters
1045-1230	Scientific Program Session 1	Scientific Program Session 5	Scientific Program Session 9	Scientific Program Session 13	Scientific Program Session 17
1230-1400	Plenary Session Lunch Posters	Plenary Session Lunch Posters	Plenary Session Lunch Posters	Plenary Session Lunch Posters	Plenary Session Lunch Posters
1400-1545	Scientific Program Session 2	Scientific Program Session 6	Scientific Program Session 10	Scientific Program Session 14	Scientific Program Session 18
1545-1615	Break Posters	Break Posters	Break Posters	Break Posters	Break
1615-1800	Scientific Program Session 3	Scientific Program Session 7	Scientific Program Session 11	Scientific Program Session 15	Closing Ceremony
1800-1900	Poster Session	Poster Session	Poster Session	Poster Session	
1900-Onwards	Evening Program including business meetings	Evening Program including business meetings	Evening Program including business meetings	Evening Program including business meetings	

Oral presentations will be 15 minutes including discussion, but invited keynote addresses may occupy two 15 minute slots.

Poster papers will be accorded a prominent place in the Congress program. Abstracts for all poster papers will be published in the Congress Abstracts and posters will be located in high traffic areas adjacent to rooms used for oral sessions and catering points.



Plenary Program

The 34th IGC Scientific Program will feature a daily Plenary Session from 1-2 pm (1300-1400 hours) in the main auditorium of the Convention Centre in which distinguished speakers will give invited presentations on major contemporary themes in the geosciences. These plenary themes are closely aligned with particular Themes and Symposia in the scientific program and are intended to promote discussion and debate within the symposia.

The Earth and Man: Living with a restless Earth

An increasing proportion of the world's population, especially in developing countries, are potentially at risk from natural hazards. This plenary will examine how man's interaction with the Earth's natural processes has shaped human society and how man has adapted to living in close proximity to natural hazards such as volcanoes, earthquakes, tsunami and floods. The speakers will also review the impact of past major geological disasters on human society and progress in assessing and mitigating the risk of geological hazards, especially in relation to major cities. The plenary will also consider man's impact on the geosphere, biosphere and the landscape, and our potential role in increasing society's vulnerability to natural hazards.

Iain STEWART (UK)



Professor Iain Stewart is a geologist and broadcaster who holds a chair in Geoscience Communication at Plymouth University, UK. After presenting several major BBC television series about the planet (Journeys from the centre of the Earth; Journeys into the Ring of Fire; Earth: The Power of the Planet; Earth: The Climate Wars, How Earth Made Us), his most recent programmes explore his own backyard, with an environmental history of Scotland (Making Scotland's Landscape) and a celebration of the Scottish pioneers of geology (Men of Rock). His latest landmark BBC series examines how plants have helped shape Earth's history.

Renato SOLIDUM Jr (Philippines)



Dr. Renato U. Solidum, Jr. is a geologist and obtained his Ph.D in Earth Science from University of California, San Diego. He is currently the Director of the Philippine Institute of Volcanology and Seismology (PHIVOLCS), the Philippine government organisation mandated to monitor and warn, assess hazards and risk, conduct research and development, and formulate awareness and preparedness plans to events related to volcanoes, earthquakes and tsunami. He leads PHIVOLCS involvement in inter-organisational activities related to disaster risk reduction of the Philippines, including multi-hazards and risk assessment and community preparedness.



What does the geological record tell us about the Earth's past climates in relation to projected climate change?

This plenary will overview the current data and projections relating to global climate change and examine the evidence from the geological record of past climate change. It will consider rates of climate change, sea levels, CO₂ levels and temperatures, geosphere-biosphere feedbacks and climate sensitivities, and explore what this might mean for the Earth's climate in the future.

Tim NAISH (New Zealand)



Professor Tim Naish is Director of the Antarctic Research Centre at Victoria University of Wellington and Principal Scientist at the New Zealand Crown Research Institute, GNS Science. He is a paleoclimatologist focussed on reconstructing past global sea-level changes from continental margin geological records. He has participated in 9 expeditions to Antarctica and helped found ANDRILL, an international Antarctic Geological Drilling Program. He was co-chief scientist of ANDRILL's McMurdo Ice Shelf Project which recovered sediment cores documenting the first direct evidence that the West Antarctic Ice Sheet had collapsed the last time the world was 2-3°C warmer, 3-5 million years ago. He is currently a Lead Author on the Intergovernmental Panel of Climate Change's 5th Assessment Report.

Will STEFFEN (Australia)



Professor Will Steffen is Executive Director of the ANU Climate Change Institute at the Australian National University (ANU), Canberra, and serves on the Multi-Party Climate Change Committee (MPCCC) and as a Climate Commissioner. He is also Co-Director of the Canberra Urban and Regional Futures (CURF) initiative, a joint venture of ANU and the University of Canberra. From 1998 to mid-2004, Steffen served as Executive Director of the International Geosphere-Biosphere Programme, based in Stockholm, Sweden. His research interests span a broad range within the fields of climate change and Earth System science, with an emphasis on incorporation of human processes in Earth System modelling and analysis; and on sustainability and climate change, with a focus on urban systems.

Energy in a carbon-constrained world

The plenary will briefly review the drivers for change to low-carbon energy future and examine the range of energy sources potentially available but with particular focus on the geo-sources of energy (fossil fuels, geothermal, nuclear, hydro). The plenary will consider the resource base, accessibility, extraction and use, technological and other limitations, and the environmental impacts of use of the various energy sources available now and in the medium term.

Lord Ron OXBURGH (UK)



Lord Ron Oxburgh, House of Lords UK Parliament, served as chairman of The Shell Transport and Trading Company until its unification with Royal Dutch Petroleum. He is a member of the House of Lords of the UK Parliament and a graduate of the Universities of Oxford and Princeton. He has taught geology and geophysics at the Universities of Oxford and Cambridge and was a visiting professor at Stanford University, the California Institute of Technology and Cornell University. From 1988 to 1993, Lord Oxburgh was Chief Scientific Adviser to the UK Ministry of Defence and, from 1993 to 2001, Rector of Imperial College, London. He has served as President of the Geological Society of London and of the European Union of Geosciences. He is a member of the Advisory Committee on Science, Technology and Research for Singapore, a Fellow of the Royal Society, an Honorary Fellow of

the Royal Academy of Engineering, and a Foreign Member of the Australian Academy of Science. He is currently an advisor on environment and energy to the Government of Singapore, Climate Change Capital and Deutschebank.

Scott TINKER (USA)



Scott Tinker's passion is education. Toward this end, he is actively engaged in building bridges between academia, industry, and government. His latest educational project is a major documentary film on global energy. Dr Tinker has developed a vision for America's energy future and concludes that energy security – available, affordable, reliable, and environmentally sustainable – must drive energy policy and that efficiency and diversity are key elements to long-term energy security. Ultimately, energy security requires a reasoned balance among energy, environment, and the economy. Dr. Tinker is the Director of the Bureau of Economic Geology, Jackson School of Geosciences, the University of Texas at Austin and Director of the Advanced Energy Consortium. He earned his Ph.D. in Geosciences from the University of Colorado.

Sally BENSON (USA)



Professor Sally M. Benson is Director of the Global Climate and Energy Project in the Department of Energy Resources Engineering at Stanford University. She has worked at Lawrence Berkeley National Laboratory in a number of capacities, including Division Director for Earth Sciences, and Deputy Director for Operations. She gained her PhD from the University of California, Berkeley. A ground water hydrologist and reservoir engineer, Prof. Benson investigates the fundamental characteristics of carbon dioxide storage in geologic formations as a means of climate change mitigation and other issues related to energy and the environment, including technologies and energy systems for a low-carbon future. She was a coordinating lead author on the 2005 Intergovernmental Panel on Climate Change (IPCC) Special Report on Carbon Dioxide Capture and Storage and is the author or co-author of over 160 scientific publications.



Resourcing Tomorrow: Meeting the needs of a growing population

This plenary will review the future demand and availability of groundwater and mineral resources. By 2050 the world's population will exceed 9 billion with well over half living in urban areas. This will require more natural resources, especially minerals and energy than used in the past, and present challenges for the discovery of resources and new extraction technologies. Population growth is likely to lead to a shortage of water in many parts of the world: water security is already shaping up as a major challenge for many countries as a consequence of climate change and a decline in groundwater resources through over use. This has profound implications for human health, global food security, and the environment.

Leader of Chinese delegation

Future Resource Demand: A Perspective From China

Eduardo LEDSHAM (Brazil)



Eduardo Ledsham was appointed Vale's Executive Director for Exploration, Energy and Projects Management in 2010. He is the Chairman of the Board of two energy companies: VSE and VEL. He developed his professional career at Vale, which he joined in 1986. Mr Ledsham has extensive experience in mineral exploration project management, both in Brazil and abroad. He has an undergraduate degree in Geology (UFMG) and a postgraduate degree in Valuation of Companies and Projects (FGV), an MBA in Management (FDC) and an MBA in Finance (IBMEC). He has taken M&A and Management courses at the Harvard Business School, MIT and IMD.

Steve GORELICK (USA)



Professor Steven Gorelick runs the Global Freshwater Initiative at Stanford University where he is the Cyrus F. Tolman Professor in the Department of Environmental Earth System Science and a Senior Fellow in the Woods Institute for the Environment. One of his major research focus areas is analysis of water-supply sustainability in developing nations, including multi-year projects in Mexico, India, and Cambodia/Vietnam that have evaluated urban-agricultural competition for surface water and groundwater resources. He is an AGU and GSA Fellow, received fellowships from both the Guggenheim and Fulbright Foundations, and produced over 100 publications, three patents, and three books.

Digital Earth - The information explosion

This plenary will overview the digital revolution and explosion of information shaping the future direction and application of the earth sciences. Rapid advances in real time monitoring and measurement, web technologies and in data transfer are making geological and geospatial data increasingly global, accessible and instantaneous, and therefore useful for purposes beyond which they were originally collected. This expanded information base, coupled with increased understanding of global geological processes, is becoming increasingly vital to governments and the global community at large. Topics include remote sensing; 4-D geology, with GPS networks contributing to the fourth dimension; geohazards and environmental monitoring; regional and global scale geophysical datasets; and 3-D geological mapping.

Thomas CUDAHY (Australia)



Dr Tom Cudahy is the Director of the Western Australian Centre of Excellence for 3D Mineral Mapping. He has over 25 years of research experience with CSIRO in Perth in developing optical remote and proximal technologies for mineral resources exploration and development, especially hyperspectral mineral mapping at visible to thermal infrared wavelengths. Tom has led numerous national and international collaborative research projects and been involved with international science teams, including ASTER and Hyperion. His 2020 vision is a public, web-accessible 3D mineral map of Australia (and beyond) based on a new generation of satellite, airborne, field and drill-core logging hyperspectral technologies.

Laura WALLACE (New Zealand)



Dr Laura Wallace is a senior scientist at GNS Science in Lower Hutt, New Zealand. Her primary research interests are in using GPS techniques to understand tectonic processes. In particular, she applies GPS methods to gain new insights into slow slip events at subduction zones, tectonic geohazards, and plate boundary zone deformation. Much of her research also involves integrating observations from GPS with geological and other geophysical data. She conducts this type of work in New Zealand, Japan, Papua New Guinea, and at a number of other western Pacific Plate boundaries.

Kristine ASCH (Germany)



Dr Kristine Asch, a geologist, heads the Geological Information Systems and Maps unit at the Federal Institute for Geosciences and Natural Resources (BGR). She is Chair of the IUGS Commission of Geoscience Information, leads the Europe Subcommission of the Commission of the Geological Map of the World, and coordinates building the Geoscience Information in Africa (GIRAF) network. Kristine authored the 1:5 Million International Geological Map of Europe and Adjacent Areas. Through her roles in the German Geoscience INSPIRE Expert Group and the EU data specifications team and working group on geology and mineral resources, and related publications, Kristine has been closely associated with the development and dissemination of a new web language for geology, which allows nations to share data with each other and the public.



Scientific Symposia

The Scientific Program for the 34th IGC is outlined over the following pages, including confirmed keynote speakers to date. More information is available on the 34th IGC website, www.34igc.org, including an outline of the scope of each of the Symposia. This is the basis of the call for abstracts. The program on the website will be updated to include additional keynote speakers as they are confirmed. The content of final program and the time table for the 5 days of scientific sessions will be determined in April 2012 after abstract submission closes.

The broad ranging scientific program for the 34th IGC includes 221 Symposia under the 37 Themes. All Symposia will be open for all IGC registrants to attend.

All Symposia in the Scientific Program are expected to include both oral and poster presentations. Individuals will only be permitted to deliver one oral presentation in the Symposia program, but they may co-author multiple oral presentations and may give multiple poster presentations. Invited keynote and specialist session presenters may deliver a second oral paper in the Symposia program.

The Scientific Program also includes the Young Earth Scientist (YES) Congress which will include a Symposium on overcoming geoscience challenges in the 21st Century and an evening program. Further details will be provided on the YES Network website (www.networkyes.org).

The official language of the Congress will be English and translation services will not be provided.

All IGC participants (including theme coordinators, symposium convenors and keynote speakers) must register for the Congress.

Symposia outlines are accessible via live links from the IGC website (www.34igc.org). Any questions or requests for further information should be addressed to the Communicating Theme Coordinators or Symposium Convenors, whose email addresses are listed in the program following.

Video-recording of presentations will not be permitted at the 34th IGC.



Theme 1. Geoscience for Society

Coordinator: Hamish CAMPBELL h.campbell@gns.cri.nz (New Zealand)

Symposia

1.1 Geoheritage, geoparks and geotourism

Bernie JOYCE ebj@unimelb.edu.au (Australia), José BRILHA (Portugal), Ian GRAHAM (New Zealand), Patrick MCKEEVER (Ireland), Nickolas ZOUROS (Greece), Changxing LONG (China), Ross DOWLING (Australia) and Angus M ROBERTSON (Australia)

Keynote speaker: William WIMBLEDON (UK)

1.2 Geoscience education

Jesus MARTINEZ-FRIAS jmfrias@cab.inta-csic.es (Spain), Gary LEWIS (USA), Sarah GAINES (USA), Julian THOMSON (New Zealand) and Bronte NICHOLLS (Australia)

Keynote speaker: Mary MARLINO (USA)

1.3 Geoscience outreach (public communication, museums and media)

Hamish CAMPBELL h.campbell@gns.cri.nz (New Zealand) and Alex COOK (Australia)

Keynote speaker: Bob CARTER (Australia)

1.4 Forensic geoscience

Rob FITZPATRICK rob.fitzpatrick@csiro.au (Australia), Laurance DONNELLY (UK) and Dallas MILDENHALL (New Zealand)

1.5 Gemstones - Diamonds

Lin SUTHERLAND l.sutherland@uws.edu.au (Australia), Ian T GRAHAM (Australia) and Lee GROAT (Canada)

Keynote speaker: Lee GROAT (Canada)



Theme 2. Geoscience Benefiting Low Income Countries

[Association of Geoscientists for International Development (AGID)]

Coordinators: Mike KATZ m.katz@unsw.edu.au (Australia), Shrikant LIMAYE (India), Afia AKHTAR (Bangladesh) and Antony REEDMAN (UK)

Symposia

2.1 Improving rural health and mitigating rural poverty through sustainable ground water development

Shrikant LIMAYE limaye@vsnl.com (India) and Afia AKHTAR (Bangladesh)

Keynote speaker: Shrikant LIMAYE (India)

2.2 Creating social awareness, preparedness and capacity-building for mitigating geohazards

Karen VILLHOLTH kgv@geus.dk (Denmark), Shrikant LIMAYE (India), and Antony REEDMAN (UK)

Keynote speaker: Karen VILLHOLTH (Denmark)

2.3 Developing geoscience education and awareness for the benefit of society

Nurul HASAN mn_hasan@ymail.com (Bangladesh), Mike KATZ (Australia), Gbenga OKUNLOLA (Nigeria), Antony REEDMAN (UK) and Chris KING (UK)

Keynote speaker: Mike KATZ (Australia)

2.4 Geoplanning for urban development and infrastructure and protecting ecosystems

Afia AKHTAR afia@agni.com (Bangladesh), Mehedi Ahmed ANSARY (Bangladesh), Shrikant LIMAYE (India), Sospeter MUHONGO (Tanzania) and Gbenga OKUNLOLA (Nigeria)

Keynote speaker: Sospeter MUHONGO (Tanzania)

2.5 Geoethics

Vaclav NEMEC lidmila.nemcova@quick.cz (Czech Republic), Jesus MARTINEZ-FRIAS (Spain), Nataliya NIKITINA (Russia), Niichi NISHIWAKI (Japan) and Silvia PEPPOLONI (Italy)

Keynote speaker: Vaclav NEMEC (Czech Republic)

2.6 Role of women geoscientists in resource development

Afia AKHTAR afia@agni.com (Bangladesh), Madhumita DAS (India), Ezzoura ERRAMI (Morocco), Mike KATZ (Australia), Sharon LOCKE (USA) and Antony REEDMAN (UK)

Keynote speaker: Afia AKHTAR (Bangladesh)

2.7 Mineral and energy resources, construction and industrial minerals

Mike KATZ m.katz@unsw.edu.au (Australia), Afia AKHTAR (Bangladesh), Gbenga OKUNLOLA (Nigeria) and Nehal UDDIN (Bangladesh)

Keynote speaker: Nehal UDDIN (Bangladesh)

2.8 The role of Geological Surveys in the development and management of natural resources, groundwater and disaster risk reduction

Antony REEDMAN antony@areedman.wanadoo.co.uk (UK), Afia AKHTAR (Bangladesh), David DENHAM (Australia), Siyan MALOMOS (Nigeria) and Qincheng HE (Thailand)

Keynote speaker: Antony REEDMAN (UK)

Theme 3. Climate Change: Lessons from the Past; Implications for the Future

Coordinators: Chris HOLLIS c.hollis@gns.cri.nz (New Zealand) and Michael BIRD (Australia)

Symposia

3.1 Climate change and food security: archaeological and palaeoenvironmental evidence for past interactions between food producers and environment

David TAYLOR taylor@tcd.ie (Ireland) and Yongqiang ZONG (China)

3.2 Geology and Archaeology: submerged landscapes of the continental shelf.

Jan HARFF (Germany) jan.harff@io-warnemuende.de, Geoff BAILEY (United Kingdom) and Friedrich LÜTH (Germany)

Keynote speakers: Nicholas FLEMMING (UK) and Jon ERLANDSON (USA)

3.3 Monsoons, droughts and extreme weather events: deciphering climate variability from the geological record

Jonathan NOTT jonathan.nott@jcu.edu.au (Australia), James SHULMEISTER (Australia) and Mohammed Rafi SAYYED (India)

3.4 Climate in a warmer world: Late Quaternary evidence from land, sea and ice records

Lionel CARTER lionel.carter@vuw.ac.nz (New Zealand), Giuseppe CORTESE (New Zealand), Rewi NEWNHAM (New Zealand) and Nancy BERTLER (New Zealand)

Keynote speakers: Marcus VANDERGOES (New Zealand) and Dorthe DAHL-JENSEN (Denmark)

3.5 The silent majority: Cenozoic (Paleocene-Pliocene) records of climatic warmth

David GREENWOOD greenwoodd@brandonu.ca (Canada), Matt HUBER (USA) and Patrick MOSS (Australia)

Keynote speakers: Gabriel BOWEN (USA), Scott HUCKNELL (Australia) and Matthew HUBER (USA)

3.6 Greenhouse world and rapid climate change during the Mesozoic [IGCP 555, IGCP 507 and ICDP Songliao Project]

Chengshan WANG chshwang@cugb.edu.cn (China), Michael WAGREICH (Austria) and Xiaoqiao WAN (China)

3.7 Pre-Mesozoic climates and global change [IGCP 591]

Kathleen HISTON catherine.histon@unimore.it (Italy), Vinod TEWARI (India) and Michael MELCHIN (Canada)

Keynote speaker: David HARPER (Denmark)

3.8. Climate change and biodiversity patterns in the Mid-Paleozoic (Early Devonian to Early Carboniferous) [IGCP 596]

Peter KÖNIGSHOF peter.koenigshof@senckenberg.de (Germany) and Thomas SUTTNER (Austria).

Keynote speakers: Wolfgang KIESSLING (Germany), Anne-Christine da SILVA (Belgium) and Carlton BRETT (United States)

3.9. Climate variability in the Holocene

Gert J DE LANGE gdelange@geo.uu.nl (Netherlands) and Francis JIMENEZ-ESPEJO (Spain)

Keynote speaker: Edouard BARD (France)

Theme 4. Environmental Geoscience

Coordinators: Colin SIMPSON simpsons@grapevine.com.au (Australia) and Michael LEGGO (Australia)

Symposia

4.1 Environmental aspects of mining

Bernd LOTTERMOSER bernd.lottermoser@utas.edu.au (Australia) and Kirk NORDSTROM (USA)

Keynote speaker: Bernhard DOLD (Chile)

4.2 Global geochemical mapping: Understanding chemical Earth (The 2nd Arthur Darnley Symposium)

David SMITH dsmith@usgs.gov (USA), Xueqiu WANG (China) and Patrice DE CARITAT (Australia)

4.3 Advances in the evaluation and interpretation of geochemical data at the continental scale

Eric GRUNSKY egrunsky@nrcan.gc.ca (Canada) and Patrice DE CARITAT (Australia)

4.4 Medical geology

Phil WEINSTEIN phil.weinstein@unisa.edu.au (Australia) and Jose CENTENO (USA)

4.5. Man made strata and geopollution

Jonas SATKUNAS jonas.satkunas@lgt.lt (Lithuania) and Hisashi NIREI (Japan)

Theme 5. Geoscience Information

Coordinators: Bruce SIMONS bruce.simons@dpi.vic.gov.au (Australia), Simon COX (Australia), Robert TOMAS (Europe), Richard HUGHES (UK), June HILL (Australia) and Lesley WYBORN (Australia)

Symposia

5.1 Geoscience spatial data infrastructure

Bruce SIMONS bruce.simons@dpi.vic.gov.au (Australia) and Robert TOMAS (Czech Republic)

5.2 Information management - interoperability and standards

Simon COX simon.cox@csiro.au (Australia) and John LAXTON (UK)

5.3 Delivery, dissemination and exploitation of geoscience data and information

Richard HUGHES rah@bgs.ac.uk (UK) and Oliver RAYMOND (Australia)

5.4 Tools – software, hardware, open source

Peter BAUMANN p.baumann@jacobs-university.de (Germany) and Robert WOODCOCK (Australia)

5.5 Model fusion, visualisation, exploration and 3-D & 4-D modelling

Laurent AILLERES laurent.ailleres@monash.edu (Australia), Holger KESSLER (UK) and Mark JESSELL (France)

5.6 Mathematical geosciences [International Association of Mathematical Geologists (IAMG)]

June HILL june.hill@csiro.au (Australia) and Ricardo OLEA (USA)

Keynote speakers: Margaretha SCOTT (Australia), Roussos DIMITRAKOPOULOS (Canada), Katsuaki KOIKE (Japan), Helmut SCHAE BEN (Germany), Juan José EGOZCUE (Spain), Michael GURNIS (USA), Christopher SCOTese (USA), Donald SINGER (USA), Cedric GRIFFITH (Australia) and Steve REDDY (Australia)



Theme 6. Energy in a Carbon Constrained World

Coordinators: Peter COOK pjcook@co2crc.com.au (Australia) and David LUMLEY (Australia)

Symposia

6.1 CO₂ geosequestration

David LUMLEY david.lumley@uwa.edu.au (Australia), Kevin DODDS (USA) and John KALDI (Australia)

6.2 Geothermal resources

Anthony BUDD anthony.budd@ga.gov.au (Australia), T HARINARAYANA (India), Greg BIGNALL (New Zealand) and Klaus REGENAUER-LIEB (Australia)

6.3 Nuclear energy and waste disposal

Charles MCCOMBIE charles.mccombie@arius-world.org (Switzerland), Andrew ORRELL (USA), John WATERHOUSE (Australia), Tomas PACES (Czech Republic) and Peter WIKBERG (Sweden)

6.4 Clean energy: options and limitations

Peter COOK pjcook@co2crc.com.au (Australia), Sally BENSON (USA) and Mike SANDIFORD (Australia)

Theme 7. Mineral Resources and Mining

Coordinators: Graham CARR graham.carr@csiro.au (Australia) and Dale SIMS (Australia)

Symposia

7.1 New age metals: the geology and genesis of ores required for a changing economy and a carbon constrained world [Society for Geology Applied to Mineral Deposits (SGA)]

David HUSTON david.huston@ga.gov.au (Australia) and Bernd LEHMAN (Germany)

7.2 Future sources of industrial minerals and construction materials

John SIEMON john@siemon.id.au (Australia), Björn SCHOUENBORG (Sweden) and Lola PEREIRA (Spain)

7.3 Resource and reserve reporting, international codes and the valuation of mineral assets

Peter STOKER pstoker@amcconsultants.com.au (Australia) and Charlotte GRIFFITHS (Switzerland)

Keynote speakers: Michael LYNCH-BELL (UK), Deborah McCOMBE (Canada), Harry PARKER (USA), Yuri PODTURKIN (Russia), and Jim ROSS (UK)

7.4 Resource modelling, estimation and visualisation for project and mine development

Scott DUNHAM sd@qgroup.net.au (Australia) and Rodrigo MELLO (Brazil)

7.5 Mining geology, technology, geophysics and geometallurgy

Dale SIMS dalesims@tpg.com.au (Australia) and Simon DOMINY (UK)

7.6 The future mine and geoscience

Jock CUNNINGHAM jock.cunningham@csiro.au (Australia) and Alberto ELFES (USA)

7.7 Qualitative and quantitative methods of assessing undiscovered mineral resources

Subhash JAIRETH subhash.jaireth@ga.gov.au (Australia), Mike CUNNINGHAM (Australia), Susan HALL (USA) and Stephen PETERS (USA)





Theme 8. Mineral Exploration Geoscience

Coordinators: Cam MCCUAIG campbell.mccuaig@uwa.edu.au (Australia) and David GILES (Australia)

Symposia

8.1 Footprints of mineralised systems: new concepts and data for exploration

Roger SKIRROW roger.skirrow@ga.gov.au (Australia), Richard TOSDAL (Canada) and Zengqian HOU (China)

8.2 The science of exploration targeting

Cam MCCUAIG campbell.mccuaig@uwa.edu.au (Australia), Graham BEGG (Australia) and Zengqian HOU (China)

8.3 Probing the Earth from near-surface to the mantle - techniques, modelling software and case histories to aid mineral exploration

Richard LANE richard.lane@ga.gov.au (Australia), Ken WITHERLY (USA), Bob MUSGRAVE (Australia), Asbjorn CHRISTENSEN (Australia), Hans-Juergen GOETZE (Germany) and Ned STOLZ (Australia)

8.4 Advances in geochemical exploration

David COHEN d.cohen@unsw.edu.au (Australia), Ravi ANAND (Australia), Ryan NOBLE (Australia), David LAWIE (Australia), Graham CLOSS (USA), Andrew RATE (Australia) and Mark ARUNDALL (Australia)

8.5 Exploration and discovery: diagnosis, prognosis, are we in need of cure? [Society for Geology Applied to Mineral Deposits (SGA)]

David HUSTON david.huston@ga.gov.au (Australia) and Mike HULEATT (Australia)

Keynote speaker: Richard Schodde (Australia)

Theme 9. Mineral Deposits and Ore Forming Processes

Coordinators: Ross LARGE ross.large@utas.edu.au (Australia) and Cornel DE RONDE (New Zealand)

Symposia

9.1 Orogen to district scale structural and tectonic controls on porphyry and epithermal deposits

Dick GLEN dick.glen@dpi.nsw.gov.au (Australia), Dave COOKE (Australia), Reimar SELTMANN (UK) and Eduardo CAMPOS (Chile)

9.2 Volcanic and basin-hosted ores (Fe, Zn-Pb, Cu, U)

Bruce GEMMELL bruce.gemmell@utas.edu.au (Australia), Cornel DE RONDE (New Zealand), Stuart BULL (Australia) and David LEACH (USA)

9.3 Dating of ore deposits

Anthony HARRIS a.harris@utas.edu.au (Australia), Sebastien MEFFRE (Australia) and Alain CHEILLETZ (France)

9.4 Iron Oxide Copper Gold deposits (IOCG); the unhappy family

Gary DAVIDSON garry.davidson@utas.edu.au (Australia), Roberto XAVIER (Brazil) and Murray HITZMAN (USA)

9.5 Sediment and/or greenstone-hosted gold [Society of Economic Geologists]

Ross LARGE ross.large@utas.edu.au (Australia), Steve COX (Australia) and Richard GOLDFARB (USA)

9.6 Global sulfur cycle and impact on metallogenesis

Andy TOMKINS andy.tomkins@monash.edu (Australia), Iain PITCAIRN (Sweden) and Katy EVANS (Australia)

Keynote speaker: David LEACH (USA)

9.7 Mineral deposits: episodes, accumulation of metals and related geodynamic processes in China and adjacent regions [IAGOD]

Jingwen MAO jingwenmao@263.net (China), Franco PIRAJNO (Australia) and Reimar SELTMANN (UK)

9.8 Metallogeny of the Tasmanides [Australian Institute of Geoscientists]

Doug YOUNG d.young@findex.net.au (Australia) and Kaylene CAMUTI (Australia)

9.9 Giant and super giant orebodies [Society of Economic Geologists]

Dave COOKE d.cooke@utas.edu.au (Australia), PEI Rongfu (China) and Richard GOLDFARB (USA)

Theme 10. Coal - a Myriad of Resources

Coordinator: Joan ESTERLE j.esterle@uq.edu.au (Australia)

Symposia

10.1 Finding resources, making reserves

Joan ESTERLE j.esterle@uq.edu.au (Australia)

10.2 Coal - a record of change

Robert LANGFORD robert.langford@ga.gov.au (Australia)

10.3 Clean coal - what is the global reality?

Leslie RUPPERT lruppert@usgs.gov (USA)

Theme 11. Petroleum Systems and Exploration

Coordinators: Marita BRADSHAW marita.bradshaw@ga.gov.au (Australia), Chris URUSKI (New Zealand) and Sylvia ANJOS (Brazil)

Symposia

11.1 Petroleum prospectivity of divergent and transform passive margin basins of North and South Atlantic, Arctic, India and Australasia

Marita BRADSHAW marita.bradshaw@ga.gov.au (Australia) and Luciano MAGNAVITA (Brazil)

11.2 Pacific rim petroleum system architecture

Chris URUSKI c.uruski@gns.cri.nz (New Zealand), Hermann LEBIT (USA), Bruce AINSWORTH (Australia), Lawrence MECKEL (Indonesia) and Ian BREWER (USA)

11.3 Petroleum system modelling; geochemistry, basins and source rock

Rob FUNNELL r.funnell@gns.cri.nz (New Zealand)

11.4 Petroleum reservoir modelling, seals and enhanced oil recovery (EOR)

Carlos Henrique BRUHN bruhn@petrobras.com.br (Brazil) and Robert SEGGIE (Australia)

11.5 Petroleum exploration in frontier basins

Irina BORRISOVA irina.borrisova@ga.gov.au (Australia), Julien COLLOT (New Caledonia) and Sylvia ANJOS (Brazil)

Keynote speaker: Phil RICHARDS (UK)

11.6 Putting the geo into geophysics - adding clout through better datasets and joint interpretation [Australian Society of Exploration Geophysicists]

Ron HACKNEY ron.hackney@ga.gov.au (Australia), Jörg EBBING (Norway), Hans-Jürgen GÖTZE (Germany) and Bernd LAHMEYER (Norway)

Keynote speaker: Lucy MacGREGOR (UK)

Theme 12. Unconventional Hydrocarbons – Emerging Fuels

Coordinators: James UNDERSCHULTZ james.underschultz@csiro.au (Australia) and Ingo PECHER (New Zealand)

Symposia

12.1 Coal Seam Gas

Mohinudeen FAIZ mohinudeen.faiz@originenergy.com.au (Australia) and Romeo FLORES (USA)

Keynote speaker: Rob WILLINK (Australia)

12.2 Shale and Tight Gas

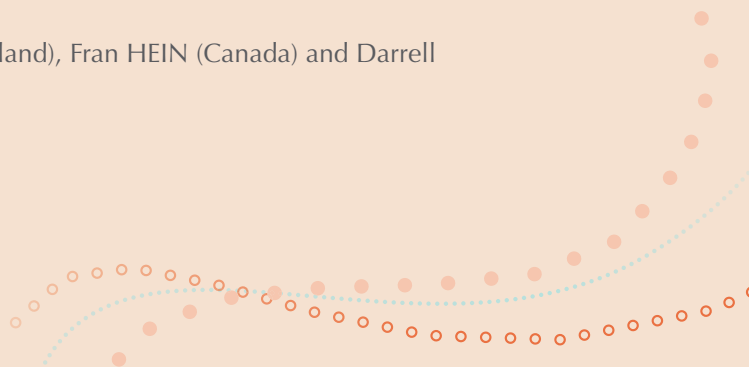
Dan MOOS dmoos@bakerhughes.com (USA) and Scott TINKER (USA)

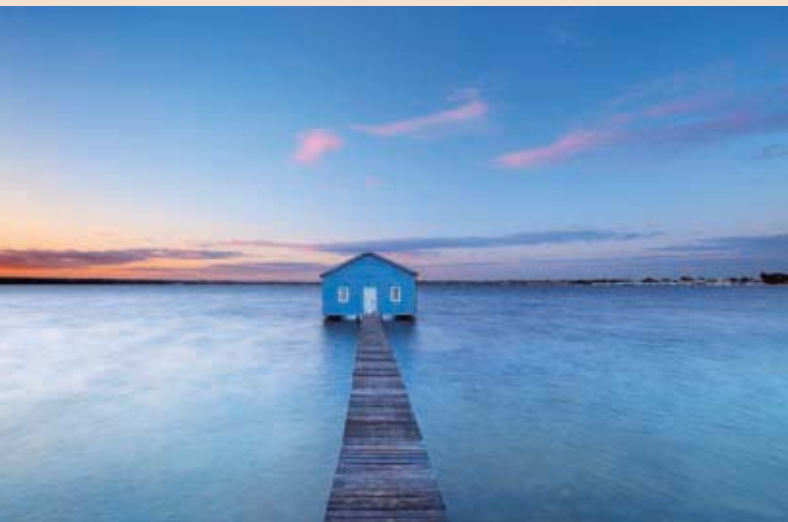
12.3 Gas hydrates

Reem FREIJ-AYOUB reem.freij-ayoub@csiro.au (Australia) and Ingo PECHER (New Zealand)

12.4 Heavy oil

Rick RICHARDSON richardson@woosh.co.nz (New Zealand), Fran HEIN (Canada) and Darrell COTTERILL (Canada)





Theme 13. Sedimentation and Sedimentary Processes

Coordinators: Chris FIELDING cfielding2@unlnotes.unl.edu (USA) and Peter MCCABE (Australia)

Symposia

13.1 Continental depositional systems

Peter MCCABE peter.mccabe@csiro.au (Australia)

13.2 Deposits of coastal and shallow marine systems

Bruce AINSWORTH bainsworth@asp.adelaide.edu.au (Australia) Julien BOURGET (Australia) and Rachel NANSON (Australia)

13.3 Deepwater sedimentation

Peter KING p.king@gns.cri.nz (New Zealand) and Greg BROWNE (New Zealand)

Keynote speaker: Dorrik STOW (UK)

13.4 Depositional controls on reservoirs

Simon LANG simon.lang@woodside.com.au (Australia)

Keynote speaker: Shaun SADDLER (Australia)

13.5 Applied ichnology

Kerrie BANN kerriebann@ichnofacies.com (Canada) and James MACEACHERN (Canada)

Keynote speakers: Murray GINGRAS (Canada) and Charles E. SAVRDA (USA)

13.6 Sedimentation in icehouse versus greenhouse epochs

Chris FIELDING cfielding2@unlnotes.unl.edu (USA)

Keynote speakers: Martin KENNEDY (Australia), Daniel LeHERON (UK) and Isabel MONTANEZ (USA)

13.7 Modelling sedimentary systems

Cedric GRIFFITHS cedric.griffiths@csiro.au (Australia)

Keynote speaker: Tristan SALLES-TAING (Australia)

13.8 Global controls on sediment accumulation

Chris FIELDING cfielding2@unlnotes.unl.edu (USA)

Keynote speakers: Mary KRAUS (USA) and Lee KUMP (USA)

13.9 River-dominated shelf sediments in Asian seas

Peter CLIFT p.clift@abdn.ac.uk (UK), Jan HARFF (Germany) and Qiu YAN (China)

Keynote speakers: Chuck NITTROUER (USA), Till HANEBRUTH (Germany) and Shu GAO (China)

Theme 14. Basin Formation and Continental Margin Processes

Coordinators: George GIBSON george.gibson@ga.gov.au (Australia) and Francois ROURE (France)
[International Lithosphere Program Task Force on sedimentary basins]

Symposia

14.1 Linking multiple scales of deformation for basin modelling

Christian HEINE christian.heine@sydney.edu.au (Australia), Peter JAPSEN (Denmark) and Simon WILLIAMS (Australia)

Keynote speakers: Olivier LACOMBE (France), Malcolm ROSS (USA), Marta PEREZ-GUSSINYE (UK), Cinthia LABAILS (NORWAY), Patrick UNTERNEHR (France) and Mark B. ALLEN (UK)

14.2 Convergent margin sedimentary basins

Francois ROURE francois.roure@ifpen.fr (France) and Kevin HILL (Australia)

Keynote speakers: Jean-Paul CALLOT (France), Ken McCLAY (UK-Chile), Alison ORD (Australia) and Jean-Claude RINGENBACH (France)

14.3 Divergent and transform passive margins: observations, imaging and case studies

Magdaena SCHECK-WENDEROTH jeni@gfz-potsdam.de (Germany), Jennie TOTTERDELL (Australia), Christophe BASILE (France) and Jean MASCLE (France)

Keynote speaker: Gianreto MANATSCAHL (France)

14.4 Passive to hyper-extended continental rift margins in the geological record: their recognition, diagnostic elements and comparison with present-day analogues

George GIBSON george.gibson@ga.gov.au (Australia) and Gianreto MANATSCHAL (France)

Keynote speaker: Geoffroy MOHN (France)



Theme 15. A Dynamic Earth

Coordinators: Dietmar MÜLLER dietmar.muller@sydney.edu.au (Australia)

Symposia

15.1 Plate tectonics, plate-mantle coupling and associated deformation

Maria SETON maria.seton@sydney.edu.au (Australia) and Giampiero IAFFALDANO (Australia)

Keynote speakers: Douwe van HINSBERGEN (Norway), Jean-Pierre BURG (Germany), Franco PIRAJNO (Australia), Tim STERN (New Zealand), and Ray RUSSO (USA)

15.2 Large asteroid impacts and crustal evolution

Andrew GLIKSON andrew.glikson@anu.edu.au (Australia), Don LOWE (USA), Vic GOSTIN (Australia) and Peter HAINES (Australia)

Keynote speakers: Don LOWE (USA), John SPRAY (Canada), Bruce SIMONSON (USA) and Kath GREY (Australia)

15.3 Evolution and dynamics of the Indo-Australian Plate

Myra KEEP myra.keep@uwa.edu.au (Australia) and Wouter SCHELLART (Australia)

Keynote speakers: Manuel PUBELLIER (France) and Mark CLOOS (USA)

15.4 Linking deep earth to plate tectonic and surface processes

Dietmar MÜLLER dietmar.muller@sydney.edu.au (Australia), Mike GURNIS (USA) and ZHAO Yue (China)

Keynote speakers: Alessandro FORTE (Canada), Mike GURNIS (USA), Nicky WHITE (UK), Huw DAVIES (UK), Trond TORSVIK (Norway), Paul WESSEL (USA), Hans-Peter BUNGE (Germany), Claudio FACCENNA (Italy), Clint CONRAD (USA), John TARDUNO (USA), Jean BRAUN (France), Steve GRAND (USA) and Shanan PETERS (USA)

15.5 Orogens and orogenesis: accretionary, cordilleran and collisional processes, products and metallogenesis

Patrice REY patrice.rey@sydney.edu.au (Australia), Richard GLEN (Australia), Christian TEYSSIER (USA), Donna WHITNEY (USA) and Zengqian HOU (China)

Keynote speakers: Taras GERYA (Switzerland), Louis MORESI (Australia), David STEGMAN (USA), Laurent HUSSON (France), Fabio CAPITANIO (Australia), Brad HACKER (USA), Aral I OKAY (Turkey), Olivier VANDERHAEGHE (France), Roberto WEINBERG (Australia), Ian METCALFE (Australia), Nick MORTIMER (New Zealand), Graciano YUMUL (Philippines), Ron HARRIS (USA), and Richard GLEN (Australia)

Theme 16. The Deep Earth

Coordinators: Sue O'REILLY sue.oreilly@mq.edu.au (Australia) and Bill GRIFFIN (Australia)

Symposia

16.1 The lithosphere-asthenosphere boundary: nature, formation and evolution from Hadean to now

Craig O'NEILL coneill@els.mq.edu.au and Manel FERNANDEZ (Spain)

Keynote speaker: David MAINPRICE (France)

16.2 Fluids in the lithospheric mantle

Alan JONES alan@cp.dias.ie (Ireland) and Anne POMMIER (USA)

Keynote speaker: Joerg HERMANN (Australia)

16.3 The crust-mantle lithosphere system

Bill GRIFFIN bill.griffin@mq.edu.au, (Australia), Ramon CARBONELL (Spain), Adrian LENARDIC (USA) and Norman PEARSON (Australia)

Keynote speaker: Mike BROWN (USA)

16.4 Deep Earth circulation

Shijie ZHONG shijie.zhong@colorado.edu (USA), Julian PEARCE (UK), Leonid DUBROVINSKY (Germany) and Jingsui YANG (China)

Keynote speakers: Michael GURNIS (USA) and Matthew G. JACKSON (USA)

16.5 Lithosphere structure from ambient noise and other seismology

Michael RITZWOLLER michael.ritzwoller@colorado.edu (USA), Ling CHEN (China), Yingjie YANG (Australia) and Juan Carlos AFONSO (Australia)

Keynote speakers: Donald W. FORSYTH (USA) and Brian KENNETT (Australia)

Theme 17. The Early Earth: Hadean and Archean Development of a Habitable Planet

Coordinators: Vickie BENNETT vickie.bennett@anu.edu.au (Australia), Malcolm WALTER (Australia) and Martin VAN KRANENDONK (Australia)

Symposia

17.1 Building planet Earth – the first 500 million years

Vickie BENNETT vickie.bennett@anu.edu.au (Australia) and Tony KEMP (Australia)

17.2 Rates and mechanisms of Archean crust formation – the relative contribution of plume versus plate tectonics

Patrice REY p.rey@usyd.edu.au (Australia), Kent CONDIE (USA) and Martin VAN KRANENDONK (Australia)

17.3 The habitats and paleobiology of early life on Earth, and the rise of oxygen

Malcolm WALTER malcolm.walter@unsw.edu.au (Australia), Dave WACEY (Australia) and Ariel ANBAR (USA)

17.4 Early Earth geodynamics and evolution – uncovering links between changing early Earth and biological diversification

Martin Van KRANENDONK martin.vankranendonk@dmp.wa.gov.au (Australia), Ian CAMPBELL (Australia) and Craig O'NEILL (Australia)

17.5 The origin and settings of Archean mineral systems

Nicolas THÉBAUD nthebaud@cyllene.uwa.edu.au (Australia), Wolf MAIER (Finland) and Kevin CASSIDY (Australia)

Theme 18. The Proterozoic Earth

Coordinators: Peter BETTS peter.betts@sci.monash.edu.au (Australia) and Martin HAND (Australia)

Symposia

18.1 Building the Australian continent

Richard BLEWETT richard.blewett@ga.gov.au (Australia) and Dorothy CLOSE (Australia)

Keynote speakers: Russell KORSCH (Australia), David HUSTON (Australia) and David EVANS (USA)

18.2 The Neoproterozoic Earth

Martin KENNEDY martin.kennedy@adelaide.edu.au (Australia), Louis DERRY (USA) and Nicholas CHRISTIE-BLICK (USA)

18.3 Proterozoic supercontinents, processes, models, myths, and possibilities

David EVANS dai.evans@yale.edu (USA) and Zheng-Xiang LI (Australia)

18.4 Proterozoic magmatism: implication for tectonic models

Kent CONDIE kcondie@nmt.edu (USA) and Justin PAYNE (Australia)

18.5 Metallogenic systems of the Proterozoic

Franco PIRAJNO franco.pirajno@dmp.wa.gov.au (Australia) and Tom BLENKINSOP (Australia)

Keynote speakers: Nick OLIVER (Australia) and Kurt KYSER (Canada)

Theme 19. Geochronology and Isotope Geology

Coordinators: Paulo VASCONCELOS paulo@earth.uq.edu.au (Australia), Donald DEPAOLO (USA) and Igor VILLA (Switzerland)

Symposia

19.1 Dating earth and planetary evolution - cosmochemistry and isotope cosmochemistry

Yuri AMELIN yuri.amelin@anu.edu.au (Australia) and Claudine STIRLING (New Zealand)

19.2 Dating our recent past - analytical methods in Quaternary geochronology and paleoclimatology

Jian-xin ZHAO j.zhao@earth.uq.edu.au (Australia), Chuan-Chou (River) SHEN (Taiwan), and Gangjian WEI (China)

19.3 Dating landscape evolution - low-temperature thermochronology and cosmogenic nuclides

Paulo VASCONCELOS paulo@earth.uq.edu.au (Australia), Ken FARLEY (USA), Paul BIERMAN (USA) and Andrew GLEADOW (Australia)

19.4 Unravelling the complexities of high and low temperature geologic processes: light and heavy stable isotope geochemistry

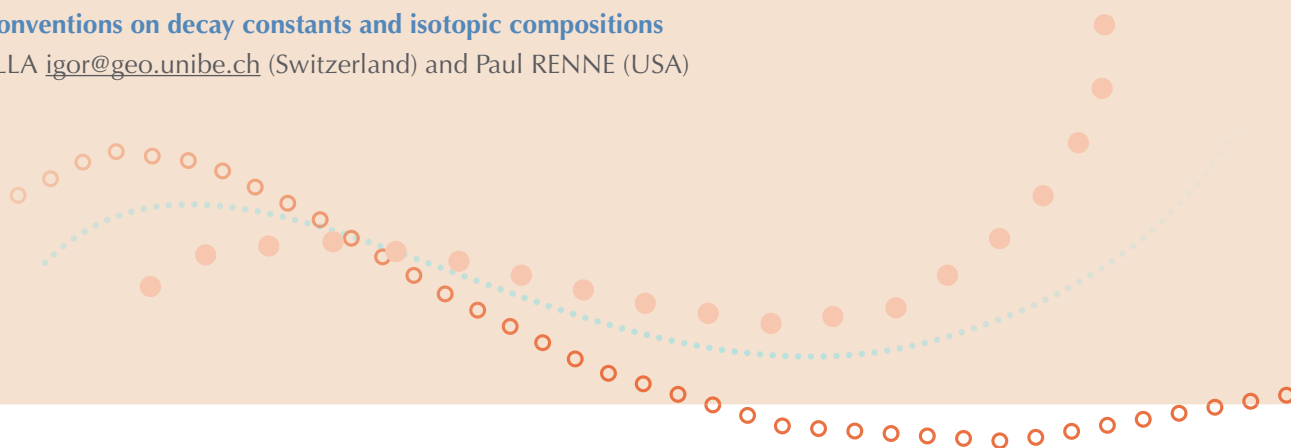
Sue GOLDING s.golding1@uq.edu.au (Australia), Torsten VENNEMANN (Switzerland) and Allan CHIVAS (Australia)

19.5 Advances in radiogenic isotope geochemistry and geochronology

Kurt KNESEL k.knesel@uq.edu.au (Australia), Márcio PIMENTEL (Brazil) and Robert CREASER (Canada)

19.6 Conventions on decay constants and isotopic compositions

Igor VILLA igor@geo.unibe.ch (Switzerland) and Paul RENNE (USA)



Theme 20. Planetary Sciences

Coordinators: Graziella CAPRARELLI graziella.caprarelli@uts.edu.au (Australia), Monica PONDRELLI (Italy), Charles LINEWEAVER (Australia), James HEAD (USA) and Phil NICHOLSON (USA)

Symposia

20.1 Surface processes on Mars

Angelo PIO ROSSI an.rossi@jacobs-university.de (Germany), Gian Gabriele ORI (Italy) and Monica PONDRELLI (Italy)

20.2 Bio-geomarkers and models in astrobiology

Jesus MARTINEZ-FRIAS jmfrias@cab.inta-csic.es (Spain) and Howell EDWARDS (UK)

20.3 Radar in planetary exploration

Roberto OROSEI roberto.oroisei@ifs-roma.inaf.it (Italy) and Jani RADEBAUGH (USA)

20.4 Lunar research and exploration in the 21st century

Robert PIDGEON r.pidgeon@curtin.edu.au (Australia) and Jennifer HELDMANN (USA)

Keynote speaker: G. Jeffrey TAYLOR (USA)

20.5 Planets and satellites of the Solar System

Graziella CAPRARELLI graziella.caprarelli@uts.edu.au (Australia)

Theme 21. Magmatism – Settings, Compositions and Processes

Coordinators: Janet HERGT jhergt@unimelb.edu.au (Australia) and Jon BLUNDY (UK)

Symposia

21.1 Felsic magmas: petrogenesis to metallogenesis

Phil BLEVIN phil.blevin@industry.nsw.gov.au (Australia), Bruce CHAPPELL (Australia) and Shunso ISHIHARA (Japan)

Keynote speaker: Bruce Chappell (Australia)

21.2 Granite versus orogenic style

Bill COLLINS bill.collins@newcastle.edu.au (Australia) and Bernard BONIN (France)

21.3 Subduction zone magmatism including a special session on magmatism in the SW Pacific

Richard WYSOCZANSKI r.wysoczanski@niwa.co.nz (New Zealand), Monica HANDLER (New Zealand) and Colin WILSON (New Zealand)

Keynote speakers: Jon BLUNDY (UK) and Richard ARCULUS (Australia) - Special session of magmatism in the SW Pacific

21.4 Magmatism in extensional environments (continental rifts and MORB)

Trevor FALLOON trevor.falloon@utas.edu.au (Australia) and Yaoling NIU (UK)

Keynote speaker: Kenneth RUBIN (USA)

21.5 Intraplate magmatism, including ocean island basalts, continental basalt provinces, kimberlites and lamproites

Ben COHEN b.cohen@uq.edu.au (Australia), Ian MCDOUGALL (Australia) and Godfrey FITTON (UK)

Keynote speaker: Anthony KOPPERS (USA)

21.6 Large Igneous Provinces (LIPS): magmatism impacts on atmosphere and biosphere

Scott BRYAN scott.bryan@qut.edu.au (Australia), Steve SELF (UK) and Ingrid UKSTINS-PEATE (USA)



Theme 22. Metamorphic Rocks and Processes

Coordinators: Jörg HERMANN joerg.hermann@anu.edu.au (Australia), Geoff CLARKE (Australia) and Simon HARLEY (UK)

Symposia

22.1 From ocean floor to subduction zone metamorphism

Katie EVANS k.evans@curtin.edu.au (Australia), Phillipe AGARD (France), Carl SPANDLER (Australia), Marco SCAMBELLURI and Jörg HERMANN (Australia)

Keynote speakers: Brad HACKER (USA) and Stefano POLI (Italy)

22.2 Rates of metamorphic processes

Geoff FRASER geoff.fraser@ga.gov.au (Australia), Ethan BAXTER (USA) and Sue BALDWIN (USA)

Keynote speakers: Daniella RUBATTO (Australia) and Mark CADDICK (Switzerland)

22.3 Mechanisms of metamorphic reactions and fluid-rock interaction

Andrew PUTNIS putnis@uni-muenster.de (Germany), Lukas BAUMGARTNER (Switzerland), Bill CARLSON (USA) and Jay AGUE (USA)

22.4 Quantification of extreme metamorphism and implications for tectonics

Chris CLARKE c.clark@curtin.edu.au (Australia), Brad HACKER (USA), Yong Fei ZHENG (China) and Yasu OSANAI (Japan)

22.5 Anatexis

Geoffrey CLARKE geoffrey.clarke@sydney.edu.au (Australia), Michael BROWN (USA), Bernardo CESARE (Italy) and Gary STEVENS (South Africa)

Keynote speakers: Edward SAWYER (Canada), FAWNA KORHONEN (Australia), Gary STEVENS (South Africa) and Fernando BEA (Spain)

22.6 Accessory phases and trace elements in metamorphic processes

Daniela RUBATTO daniela.rubatto@anu.edu.au (Australia), Nigel KELLY (USA), Ian BUICK (South Africa), Simon HARLEY (UK) and Thomas ZACK (Germany)

Keynote speakers: Emilie JANOTS (France) and Steve REDDY (Australia)



Theme 23. Evolution of the Biosphere

Coordinators: John LAURIE john.laurie@ga.gov.au (Australia) and Andrew KNOLL (USA)

Symposia

23.1 Martin Glaessner symposium: The Ediacaran and the Cambrian Explosion

John LAURIE john.laurie@ga.gov.au (Australia), Glenn BROCK (Australia) and Guy NARBONNE (Canada)

23.2 John Talent symposium: Paleozoic biofacies, biogeography and bioevents

Ian PERCIVAL ian.percival@industry.nsw.gov.au (Australia), Tony WRIGHT (Australia) and Guang SHI (Australia)

23.3 Evolution of hominins

Colin GROVES colin.groves@anu.edu.au (Australia), Chris STRINGER (Australia) and Darren Curnoe (Australia)

23.4 General palaeontology

Alex COOK alex.cook@qm.qld.gov.au (Australia) and Alexander NUTZEL (Germany)

23.5 Oxygen and evolution

Andrew KNOLL aknoll@oeb.harvard.edu (USA) and Jochen BROCKS (Australia)

23.6 Proterozoic life

Kathleen GREY kath.grey@dmp.wa.gov.au (Australia) and Stanley AWRAMIK (USA)

23.7 Gondwanan Mesozoic vertebrates

Benjamin KEAR benjamin.kear@geo.uu.se (SWEDEN) and Thomas RICH (Australia)

23.8 Mesozoic bioevents

David HAIG david.haig@uwa.edu.au (Australia), Stephen MCLOUGHLIN (Sweden) and Mikael SIVERSSON (Australia)

23.9 Origin and evolution of marsupials

Michael ARCHER m.archer@unsw.edu.au (Australia) and Suzanne HAND (Australia)

23.10 Early vertebrate evolution

Kate TRINAJSTIC k.trinajstic@curtin.edu.au (Australia)

23.11 Cenozoic marine environments

Stephen GALLAGHER sjgall@unimelb.edu.au (Australia) and Bridget WADE (UK)

Keynote speaker: Paul N PEARSON (UK)

Theme 24. Reefs and Carbonates

Coordinators: Gregory E WEBB g.webb@uq.edu.au (Australia) and Noel P JAMES (Canada)

Symposia

24.1 Reefs and climate change

Gilbert CAMOIN gcamoin@cerege.fr (France) and Bradley OPDYKE (Australia)

24.2 Ancient reefs

Wolfgang KIESSLING wolfgang.kiessling@mfn-berlin.de (Germany) and Jody WEBSTER (Australia)

24.3 Understanding microbial carbonates

Robert RIDING riding@cf.ac.uk (USA) and Gregory E WEBB (Australia)

24.4 Secular change in carbonate sedimentology/geochemistry

Vinod TEWARI vtewari@wihg.res.in (India) and Annette GEORGE (Australia)

Keynote speaker: Tracey FRANK (USA)

Theme 25. Marine Geoscience and Oceanography

Coordinators: Peter HARRIS peter.harris@ga.gov.au (Australia) and Neville EXON (Australia)

Symposia

25.1 Integrated Ocean Drilling Program (IODP), the results of deep drilling in the oceans

Neville EXON neville.exon@anu.edu.au (Australia) and Mike MOTTI (USA)

Keynote speaker: Mike MOTTI (USA)

25.2 Palaeoceanography and sea-level records

Colin WOODROFFE colin@uow.edu.au (Australia) and Leanne ARMAND (Australia)

Keynote speaker: Eelco J ROHLING (UK)

25.3 Physical processes of coastal and shelf sedimentation

Peter HARRIS peter.harris@ga.gov.au (Australia), James SYVITSKI (USA) and Charitha PATTIARATCHI (Australia)

Keynote speaker: Michael COLLINS (UK)

25.4 Source to sink sediment pathways and the evolution of continental margins

Chuck NITTROUER nittroue@ocean.washington.edu (USA) and Alan ORPIN (New Zealand)

Keynote speakers: John P WALSH (USA) and Peter D CLIFT (UK)

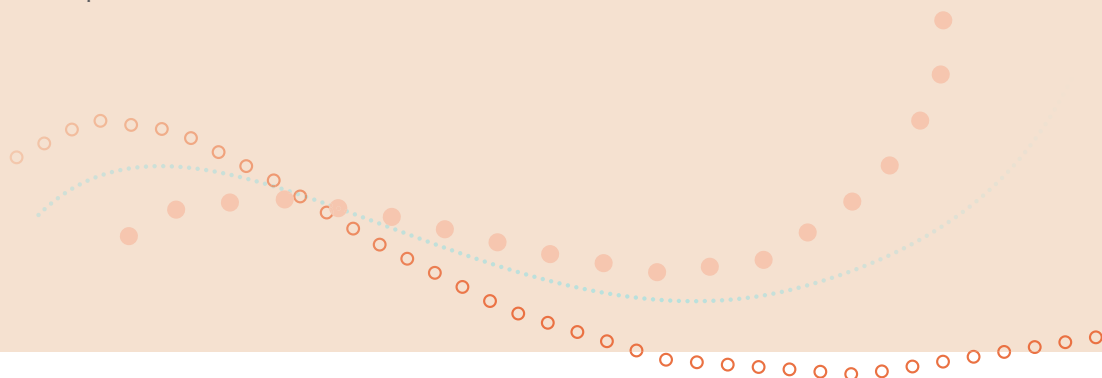
25.5 Geoscience applications for ocean management and also for supporting jurisdictional claims under the United Nations Law of the Sea

Andrew HEAP andrew.heap@ga.gov.au (Australia), Brian TODD (Canada) and Mark ALCOCK (Australia)

Keynote speakers: Gary GREENE (USA) and Phil SYMONDS (Australia)

25.6 Marine minerals in Oceania

David CRONAN d.cronan@imperial.ac.uk (UK), Cornel DE RONDE (New Zealand) and Neville EXON (Australia)





Theme 26. Antarctic and Arctic Geoscience

Coordinators: Phil O'BRIEN phil.obrien.ant@gmail.com (Australia) and Tim NAISH (New Zealand)

Symposia

26.1 The geology of Antarctic life: history and habitats

Phil O'BRIEN phil.obrien.ant@gmail.com (Australia) and Jeff STILWELL (Australia)

26.2 Antarctic marine biogeochemistry

Simon GEORGE simon.george@mq.edu.au (Australia) and Leanne ARMAND (Australia)

26.3 Arctic tectonics

Loic LABROUSSE loic.labrousse@upmc.fr (France), Oleg PETROV (Russia) and Christopher HARRISON (Canada)

26.4 Rodinia to Gondwana: evolution of the southern supercontinent

Chris CARSON chris.carson@ga.gov.au (Australia) and Mark FANNING (Australia)

26.5 Polar climate archives and their global significance

Tim NAISH timothy.naish@vuw.ac.nz (New Zealand) and Henk BRINKHUIS (The Netherlands)

Theme 27. Biogeoscience

Coordinators: Matthew STOTT m.stott@gns.cri.nz (New Zealand) and Jill BANFIELD (USA)

Symposia

27.1 Biogeochemical cycling

John MOREAU jmoreau@unimelb.edu.au (Australia)

27.2 Understanding biogeological processes using '-omic' technologies

Jill BANFIELD jbanfield@berkeley.edu (USA) and Matthew STOTT (New Zealand)

27.3 Microbes and extreme environments

Lesley WARREN warrenl@mcmaster.ca (Canada) and Don COWAN (South Africa)

27.4 The deep biosphere

Anna KAKSONEN anna.kaksonen@csiro.au (Australia) and Katrina EDWARDS (USA)

27.5 Bioprocessing technologies

Racquel QUATRINI rquatrini@yahoo.com.ar (Chile) and Carol DAVIS-BELMAR (Chile)

27.6 Austral Portals: Paleobiogeography and paleogeography of Gondwana breakup

Jo WHITTAKER jo.whittaker@sydney.edu.au (Australia), Ross MCPHEE (USA) and Dave BARBEAU (USA)



Theme 28. Groundwater/Hydrogeology

Coordinators: Ken LAWRIE ken.lawrie@ga.gov.au (Australia) and Chris DAUGHNEY (New Zealand)

Symposia

28.1 Groundwater resources and sustainable management

Gil ZEMANSKY g.zemansky@gns.cri.nz (New Zealand) and Ross BRODIE (Australia)

28.2 Groundwater processes: interactions, dynamics and response

Chris DAUGHNEY c.daughney@gns.cri.nz (New Zealand), Uwe MORGENSTERN (New Zealand) and Bear MCPHAIL (Australia)

28.3 Geoscientific mapping, characterisation and conceptualisation of hydrogeological systems

Ken LAWRIE ken.lawrie@ga.gov.au (Australia), Jon CLARKE (Australia) and Mal COX (Australia)

28.4 Groundwater for energy and mining

Ken LAWRIE ken.lawrie@ga.gov.au (Australia) and Steven LEWIS (Australia)

28.5 Hazards and risks to groundwater systems

Ken LAWRIE ken.lawrie@ga.gov.au (Australia), Baskaran SUNDERAM (Australia) and Chris DAUGHNEY (New Zealand)

28.6 Visualisation and modelling of groundwater systems

Malcolm COX m.cox@qut.edu.au (Australia), Mauricio TAULIS (Australia) and Bruce GILL (Australia)

Theme 29. Surficial Processes and Landscape Evolution

Coordinators: Allan CHIVAS toschi@uow.edu.au (Australia) and Brad PILLANS (Australia)

Symposia

29.1 Landscape response to climate change: quantifying present and ancient rates of earth surface processes

Anthony DOSSETO tonyd@uow.edu.au (Australia) and Arjun HEIMSATH (USA)

Keynote speaker: Paul BIERMAN (USA)

29.2 Karst: processes, environment and palaeoenvironmental records

Jianhua CAO jhcao@karst.edu.cn (China) and Yaoru LU (China)

29.3 History of aridity: evidence from the continents and the oceans

Paul HESSE paul.hesse@mq.edu.au (Australia) and Matt TELFER (UK)

29.4 Deep weathering through deep time: regolith processes and ore deposits

Ravi ANAND ravi.anand@csiro.au (Australia) and Allan CHIVAS (Australia)

Keynote speaker: Bill VERBOOM (Australia)

29.5 Gondwana landscapes: tectonics and denudation

Brad PILLANS brad.pillans@anu.edu.au (Australia) and Paul BISHOP (UK)

29.6 Clays and clay minerals: geology, properties and uses

Chun-Hui ZHOU chunhui09clay@yahoo.cn (China) and John KEELING (Australia)



Theme 30. Geohazards

Coordinators: Phil CUMMINS phil.cummins@anu.edu.au (Australia), Terry WEBB (New Zealand) and Kelvin BERRYMAN (New Zealand)

Symposia

30.1 Subaerial and submarine landslide hazards [IGCP585]

Jason CHAYTOR jchaytor@usgs.gov (USA), Ashvin WICKRAMASOORIYA (Sri Lanka) and Diana ZAKHIDOVA (Romania)

30.2 Natural hazards and climate change

Bob CECHET bob.cechet@ga.gov.au (Australia), Graeme SMART (New Zealand) and Martyn HAZELWOOD (Australia)

30.3 Improving the interaction between natural/physical and social sciences to increase the effectiveness of natural disaster risk reduction

Irina RAFLIANA irina_rafliana@hotmail.com (Indonesia), Dale DOMINEY-HOWES (Australia) and Michelle DALY (New Zealand)

30.4 Geohazards in subduction zones

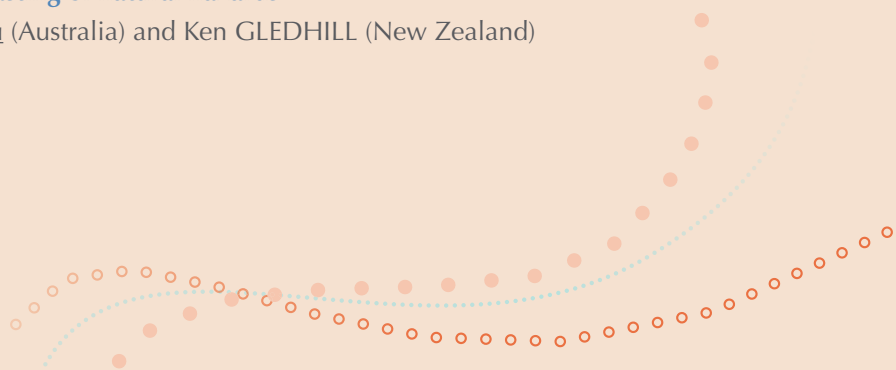
Laura WALLACE l.wallace@gns.cri.nz (New Zealand), Phil CUMMINS (Australia) and Danny NATAWIDJAJA (Indonesia)

30.5 Geohazard risk analysis: The state of the art

Jane SEXTON jane.sexton@ga.gov.au (Australia)

30.6 Earth monitoring for improved forecasting of natural hazards

Phil CUMMINS phil.cummins@anu.edu.au (Australia) and Ken GLEDHILL (New Zealand)



Theme 31. Engineering Geology and Geomechanics

Coordinators: Mark EGGERS mark.eggers@psmconsult.com.au (Australia) and Francisco DE JORGE (Brazil)

Symposia

31.1 Engineering geological challenges for our ever growing cities

Martin CULSHAW martin.culshaw2@ntlworld.com (UK)

Keynote speaker: Simon PRICE (UK)

31.2 Engineering geology in major infrastructure developments

Francisco DE JORGE francisco.dejorge@engeocons.com.br (Brazil)

31.3 Engineering geology in mining

Mark EGGERS mark.eggers@psmconsult.com.au (Australia)

31.4 Engineering geology in managing risk from geohazards and impacts of climate change

Anders SOLHEIM anders.solheim@ngi.no (Norway)

31.5 Improving the development of geological models for engineering studies

Steve PARRY sparry@georisksolutions.com (Hong Kong)

31.6 Interaction of engineering geology and geomechanics

Phil PAIGE-GREEN ppaigegr@csir.co.za (South Africa)

Theme 32. Geoscience Information from Proximal and Remote Sensing Technologies

Coordinators: Tom CUDAHY thomas.cudahy@csiro.au (Australia), Adam LEWIS (Australia), and Carlos DE SOUZA FILHO (Brazil) [UNESCO- IUGS Geological Applications of Remote Sensing (GARS) program]

Symposia

32.1 Mineral exploration

Fred KRUSE fakruse@nps.edu (USA)

32.2 Mining and geometallurgy

Kai YANG kai.yang@csiro.au (Australia)

32.3 Energy: hydrocarbons, uranium and geothermal

Carlos DE SOUZA FILHO beto@ige.unicamp.br (Brazil)

32.4 Environmental monitoring in resource development

Tom CUDAHY thomas.cudahy@csiro.au (Australia) and Cindy ONG (Australia)

Keynote speaker: Eyal BEN-DOR (Israel)

32.5 Earth's environment: geology, landforms, soils, water and biomass

Sabine CHABRILLAT chabri@gfz-potsdam.de (Germany)

32.6 Disaster management

Mike ABRAMS michael.j.abrams@jpl.nasa.gov (USA)

32.7 Second National Virtual Core Library (NVCL) Symposium

Jon HUNTINGTON jon.huntington@csiro.au (Australia)



Theme 33. History of the Geosciences

Coordinators: Barry COOPER barry.cooper@unisa.edu.au (Australia) and S F de M FIGUEIRÔA (Brazil)
[37th Conference of the International Commission on the History of Geological Sciences - INHIGEO]

Symposia

33.1 Biographical studies of eminent geologists: A symposium in honour of David Branagan

David OLDROYD doldroyd@bigpond.com (Australia)

Keynote speaker: Léo F LAPORTE (USA)

33.2 The early history of continental drift: A centenary tribute to Alfred Wegener (1912)

Allan KRILL allan.krill@ntnu.no (Norway) and Homer LE GRAND (Australia)

Keynote speaker: Allan KRILL (Norway)

33.3 Major achievements in 20th century geology

Carol BACON cbacon@mrt.tas.gov.au (Australia)

33.4 Geology in tropical regions

Bernie JOYCE ebj@unimelb.edu.au (Australia)

33.5 Geologists, resource exploration and development: an historical perspective

Ken MCQUEEN ken.mcqueen@canberra.edu.au (Australia)

33.6 General contributions on the history of geology

Barry COOPER barry.cooper@unisa.edu.au (Australia)

Theme 34. Major Geoscience Initiatives, Geosurveys and Maps

Coordinators: Ian LAMBERT ian.lambert@ga.gov.au (Australia) and Ian WITHNALL (Australia)

Symposia

34.1 Geological processes of the construction of Asia

Manuel PUBELLIER manupub.pubellier@gmail.com (France), REN Jishun (China) and JIN Xiaochi (China)

34.2 Geological and metallogenic responses to deep processes in Eastern Asia and continental margins

DONG Shuwen dic@cags.ac.cn (China) and Oleg PETROV (Russia)

34.3 SinoProbe—deep exploration in China

DONG Shuwen dic@cags.ac.cn (China), LI Tingdong (China), Larry BROWN (USA) and LIU Mian (USA)

34.4 Seismotectonic map of Africa: Revisiting spatial distribution of earthquakes, active faulting, crustal deformation and volcanic eruptions in the continent

Mustapha MEGHRAOUI m.meghraoui@unistra.fr (France), Vunganai MIDZI (South Africa) and Atalay AYELE (Ethiopia)



Theme 35. Geostandards

Coordinators: Colin SIMPSON simpsons@grapevine.com.au (Australia) and William CAVAZZA (Italy)

Note – The Geostandards sessions are organised by groups associated with the IUGS. Presentations may be by invitation of the convenors.

Symposia

35.1 GSSPs (Global boundary-stratotype section and point) as global geostandards

Stan FINNEY scfinney@csulb.edu (USA), Marco BALINI (Italy) and Jim OGG (USA)

35.2 International Subcommittee on Precambrian stratigraphy: a chronostratigraphic division of the Precambrian: possibilities and challenges

Martin VAN KRANENDONK martin.vankranendonk@dmp.wa.gov.au (Australia)

35.3 International Subcommittee on Neoproterozoic stratigraphy: Neoproterozoic chronostratigraphy and the evolution and diversification of metazoa and evolution of the Earth system

James GEHLING jim.gehling@samuseum.sa.gov.au (Australia)

35.4 International Subcommittee on Cambrian stratigraphy: Cambrian chronostratigraphy and evolution and diversification of early Cambrian life

Shanchi PENG pengshanchi@hotmail.com (China) and Loren BABCOCK (USA)

35.5 International Subcommittee on Ordovician stratigraphy: Ordovician intercontinental correlations: developing global and regional chronostratigraphy

David HARPER dharper@snm.ku.dk (Denmark) and Ian PERCIVAL (Australia)

35.6 International Subcommittee on Devonian stratigraphy: the Devonian of Asia and Australia

Thomas BECKER rbecker@uni-muenster.de (Germany)

35.7 The Devonian-Carboniferous-Permian Correlation Chart

Manfred MENNING menne@gfz-potsdam.de (Germany)

35.8 International Subcommittee on Quaternary stratigraphy: short-time divisions in the Quaternary; and onshore-offshore correlation during the Quaternary

Phil GIBBARD plg1@hermes.cam.ac.uk (UK)

35.9 Other geostandards

Colin SIMPSON simpsons@grapevine.com.au (Australia)

Theme 36. Regional, Thematic and Specialist Symposia

Coordinator: Ian LAMBERT ian.lambert@ga.gov.au (Australia)

These sessions are organised by groups associated with the IUGS and other international and national associations. Oral presentations may be by invitation of the convenors.

Symposia

36.1 From the Caspian Sea to the Mediterranean Corridor: Paleoenvironmental change and human response from the Last Glacial Maximum into the future [International Union for Quaternary Research (INQUA) 0501 and IGCP 521]

Valentina YANKO-HOMBACH valyan@avalon-institute.org (Canada), Olena SMYNTYNA (Ukraine) and Tamara YANINA (Russia)

36.2 Dust from geological sources: impacts on the economy, environment and society [IUGS – Commission on Geoscience for Environmental Management (GEM) Working Group on Dust]

Brian MARKER brian@amarker.freeseerve.co.uk (UK) and Jose CENTENO (USA)

36.3 Natural hazards and ancient societies [IGCP 567]

Patrick NUNN pnunn3@une.edu.au (Australia), Bruce MCFADGEN (New Zealand), Iain STEWART (UK) and Manuel SINTUBIN (Belgium)

36.4 Environmental change and sustainability in karst systems: relations to climate change and anthropogenic activities (2011-2016) [IGCP/SIDA Project 598]

Cheng ZHANG chzhang@karst.ac.cn (China), Chris GROVES (USA) and Augusto AULER (Brazil)

36.5 International perspectives on teaching geological mapping [GSA International Section]

Joann STOCK jstock@gps.caltech.edu (USA) and Anke FRIEDRICH (Germany)

36.6 Greater Altai – a unique rare-metal-gold-polymetallic province in Central Asia [National Committee of Kazakhstan Geologists]

Bulat UZHKENOV bekzhanov@nursat.kz (Kazakhstan), Alexey VARLAMOV (Russia) and Grigory ABRAMSON (Australia).

36.7 Overcoming geoscience challenges in the 21st century by developing and improving the skills of early-career geoscientists [YES Network]

Joanne VENUS eejhv@leeds.ac.uk (UK), Gabriela PERLINGEIRO (Australia) and Michelle COOPER (Australia)

36.8 Inclusions in minerals [International Mineralogical Association Working Group on Inclusions in Minerals]

Pei NI peini@nju.edu.cn (China), Ronald BAKKER (Austria) and Fanus VILJOEN (South Africa)

Keynote speakers: Vadim KAMENETSKY (Australia) and Guoxiang CHI (Canada)

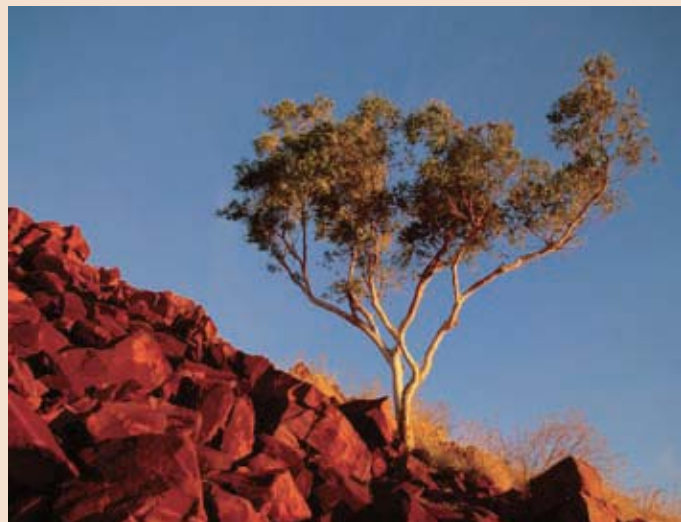
36.9 Uranium resources, supply and demand [IAEA-OECD/NEA Uranium Group]

Ian LAMBERT ian.lambert@ga.gov.au (Australia)

36.10 Strengthening communication between fundamental and applied geosciences and between geoscientists and public [European Federation of Geologists]

Isabel FERNÁNDEZ FUENTES isabel.fernandez@eurogeologists.eu and Ruth ALLINGTON (UK)





Theme 37. Alternative Concepts

These sessions will be arranged by the convenors listed and presentations may be by invitation.

Symposia

37.1 Expanding Earth (Sam Carey Memorial)

Giancarlo SCALERA giancarlo.scalera@ingv.it (Italy), James MAXLOW (Australia), Cliff OLLIER (Australia) and Stefan CWOJDZINSKI (Poland)

37.2 Pursuit of a new global geodynamic paradigm

Dong CHOI raax@ozemail.com.au (Australia), Ismail BHAT (India) and Karsten STORETVEDT (Norway)

Keynote speakers: Ismail BHAT (India), Karsten STORETVEDT (Norway), Dong R CHOI (Australia), Takao YANO (Japan), and Boris I. VASILIEV (Russia)

Other Major Forums

F.1 Young Earth Scientists (YES) Congress – evening program

Gabriela PERLINGEIRO gabrielaperlingeiro@yahoo.com (Australia), Joanne VENUS (UK) and Michelle COOPER (Australia)

F.2 International GeoSurveys' Forum: Addressing major challenges - multi-disciplinary approaches built on advances in information management and computing power

Alex MALAHOFF a.malahoff@gns.cri.nz (New Zealand) and Chris PIGRAM (Australia)

F.3 Global Geoscience Initiative

Edmund NICKLESS edmund.nickless@geolsoc.org.uk (UK), John LUDDEN (UK), Pat LEAHY (USA) and Jack HESS (USA)

F.4 Planet Earth Institute (PEI) – successor to the International Year of Planet Earth Initiative (IYPE)

Ed DE MULDER e.demulder@planet.nl (Netherlands), Wolfgang EDER (Germany), Sierd CLOETINGH (Netherlands), and Sospeter MUHONGO (Tanzania)

Call For Abstracts

Contributors are invited to submit abstracts for the 34th IGC Scientific Program via the 34th IGC abstract submission website at www.34igc.org.

Please note that the absolute deadline for all abstract submissions is Friday 17 February 2012.

Abstracts submitted after this date will not be accepted.

Abstracts are limited to 250 words. Tables, figures, references and other graphics cannot be accepted in abstracts. Abstracts must be submitted by the presenting author (oral and poster). All abstracts will be reviewed by the appropriate Theme or Symposium/Session convenors.

Summary of abstract submission instructions

Abstracts should be submitted via the Abstract Submission link of the IGC website:

www.34igc.org. During the Abstract Submission process, authors should select the theme and symposium they wish to present in (oral and poster) from the drop down menu. If they are uncertain where their paper best fits, they should use the "Reviewers Choice" category at the very bottom of the drop-down menu for each theme.

Authors are permitted to submit only one presenting author abstract for oral presentation, but may also submit abstracts for poster papers and be non-presenting co-authors on other oral presentations. Keynote speakers and invited presenters in IUGS symposia/sessions in Themes 34 and 35 may submit an additional offered abstract for oral presentation.

Abstracts must be prepared and submitted in the prescribed format. Please carefully read through the submission instructions below for preparing and submitting your abstract:

STEP 1. Download the Abstract Guidelines which describes how to prepare your abstract and the Abstract Template from www.34igc.org/submit-abstracts.php and save as a .doc document to your computer.

STEP 2. Prepare your abstract exactly following instructions given in the Guidelines and Abstract Template. Abstracts must not exceed the 250 word limit.

STEP 3. Log onto the 34th IGC Abstract Submission website and enter the details of the presenting author and nominate the number of abstracts to be submitted. ABSTRACT(S) MUST BE SUBMITTED BY THE PRESENTING AUTHOR. You will be required to pay a non-refundable A\$40 author abstract fee by credit card.

STEP 4. Enter the title of your abstract and nominate your preference for oral or poster presentation.

STEP 5. Carefully read and accept the terms and conditions of abstract submission.

STEP 6. Print a copy of the abstract submission form for your records prior to clicking 'upload'. Select the Theme and Symposium from the drop down menus. Attach/Upload your Abstract.

Publications

The 34th IGC will publish standard abstracts electronically at the time of the event, but will not publish papers presented. Symposium convenors and groups wishing to publish papers presented at the 34th IGC are free to enter independently into agreements with publishing houses.

The scientific sponsor of the Congress, the IUGS, has an arrangement with **The Geological Society** of London (GSL) Publishing House for the publication of books arising from its programs and other activities, including International Geological Congresses. GSL will approach selected IGC Symposia and Specialist Session Convenors to encourage them to consider producing a *Geological Society Special Publication* from their session - *Special Publications* are published online and as hardback books which will be included in ISI Web of Science and Scopus.

The *Special Publications* do not have to be comprehensive treatments, but they do need to be balanced and have a strong subject focus. Ideally they comprise 18-25 papers, although there have been longer and shorter ones. More information can be found at www.geolsoc.org.uk/sp.

Alternatively, Convenors are free to negotiate publication of their Symposia/Specialist Sessions with other publishing houses, or to elect not to publish full papers.

Professional Development Workshops and Short Courses

A series of professional development workshops and short courses will be held in Brisbane at the Congress venue (Brisbane Convention and Exhibition Centre) and other venues throughout Brisbane before, during and after the 34th IGC.

A list of the workshops appears below and a content summary for each workshop is provided at www.34igc.org/workshops.php.

It will be necessary to register in advance for all workshops and fees apply in some cases. Registration fees and information on how to register will be released in Circular 4, due for release in December 2011.

Enquiries concerning workshops should be directed to the contact persons provided for each workshop in the table below.

Pre-Congress

WORKSHOP 1:

DATE	Thursday 2nd & Friday 3rd August 2012
TITLE	INTEGRATING ICHNOLOGY and SEDIMENTOLOGY
LOCATION	VENUE TO BE CONFIRMED
ORGANISERS	University of Nebraska-Lincoln
PRESENTERS	Dr James MacEachern (Simon Fraser University) Dr Kerrie Bann (Ichnofacies Pty Ltd) Dr Christopher Fielding (University of Nebraska- Lincoln)
CONTACT	CHRIS FIELDING Cfielding2@unl.edu

WORKSHOP 2:

DATE	Thursday 2nd & Friday 3rd August 2012
TITLE	3D GEOLOGICAL MODELLING AND INTERACTIVE TARGETING FOR MINERAL EXPLORATION
LOCATION	MIRA Geosciences Office Toowong Brisbane
ORGANISERS	MIRA GEOSCIENCES
PRESENTERS	Glenn Pears, James Alderman, Tim Chalke and Peter Fullagar (Mira Geoscience)
CONTACT	TIM CHALK timc@miragegeosciences.com

WORKSHOP 3:

DATE	Friday 3rd August 2012
TITLE	EXTRA HEAVY OIL and OIL SANDS: CHALLENGES and OPPORTUNITIES
LOCATION	VENUE TO BE CONFIRMED
ORGANISERS	Statoil Canada Ltd
PRESENTERS	Rudy Strobl (Statoil Canada, Heavy Oil Technology Centre) Milovan Fustic (Nexen Inc- Canadian Oil and Gas Division) Daryl Wightman (Rock Doc Consulting Ltd)
CONTACT	Rudy Strobl rudstr@statoil.com

WORKSHOP 4:

DATE	Saturday 4th August 2012
TITLE	GEOCHEMISTRY IN MINERAL EXPLORATION
LOCATION	VENUE TO BE CONFIRMED
ORGANISERS	Members of Association of Applied Geochemists
PRESENTERS	Association of Applied Geochemists, co-ordinated by Dr David Cohen
CONTACT	David Cohen d.cohen@unsw.edu.au

WORKSHOP 5:

DATE	Saturday 4th & Sunday 5th August 2012
TITLE	MAGMATIC Ni-Cu and PGE DEPOSITS: GEOLOGY, GEOCHEMISTRY and GENESIS
LOCATION	VENUE TO BE CONFIRMED
ORGANISERS	Society of Economic Geologists
PRESENTERS	Dr Chusi Li and Dr Ed Ripley (University of Indiana plus others to be advised)
CONTACT	Ed Ripley ripley@indiana.edu

WORKSHOP 6:

DATE	Sunday 5TH August 2012
TITLE	GEOCHEMISTRY, MINERALOGY and MICROBIOLOGY of ARSENIC in the ENVIRONMENT
LOCATION	CONGRESS VENUE
ORGANISERS	Mineralogical Society Of America
PRESENTERS	Dr Rob Howell (SRK Consulting UK) Dr Dave Polya (University of Manchester UK) Dr Dave Craw (University of Otago NZ) Dr Jack Ng (University of Queensland) Dr Petr Drahota (Charles University Czech Republic)
CONTACT	Rob Howell rhowell@srk.co.uk

WORKSHOP 7:

DATE	Sunday 5th August 2012
TITLE	CONTOURITES and THEIR SIGNIFICANCE: OCEANOGRAPHIC PROCESSES and SEDIMENTARY PRODUCTS ASSOCIATED with DEEP - WATER CIRCULATION
LOCATION	CONGRESS VENUE
ORGANISERS	Universidad De Vigo Spain
PRESENTERS	Professor Dorrik Stow (Heriot -Watt University Edinburgh) Dr Javier Hernandez – Molina (University of Vigo, Spain) Professor Dr David Van Rooij (Ghent University Belgium)
CONTACT	Dr F Javier Hernandez – Molina fjhernan@uvigo.es

WORKSHOP 8:

DATE	Sunday 5th August 2012
TITLE	THE PRACTICAL GEOLOGY OF THE SOLWARA 1 SEAFLOOR MASSIVE SULPHIDE DEPOSIT, PNG
LOCATION	CONGRESS VENUE
ORGANISERS	Nautilus Minerals
PRESENTERS	Dr Peter Crowhurst and others to be advised.
CONTACT	Sandra Lee Graham slg@nautilusminerals.com

WORKSHOP 9:

DATE	Sunday 5th August 2012
TITLE	STRATIGRAPHIC FORWARD MODELLING
LOCATION	UNIVERSITY OF QUEENSLAND
ORGANISERS	CSIRO
PRESENTERS	Dr Cedric Griffith, Dr Chris Dyt and Dr Tristan Salles (CSIRO)
CONTACT	Cedric Griffiths cedric.griffiths@csiro.au

WORKSHOP 10:

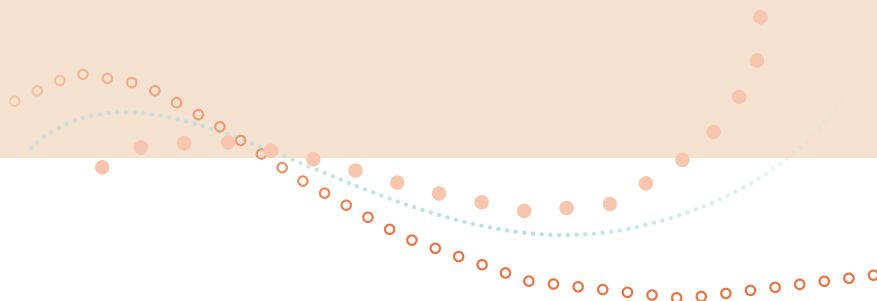
DATE	Sunday 5th August 2012
TITLE	TECHNIQUES AND APPLICATIONS OF PETROLEUM INCLUSION ANALYSIS
LOCATION	SCHOOL of EARTH SCIENCES, UNIVERSITY OF QUEENSLAND
ORGANISERS	CSIRO
PRESENTERS	Dr Herbert Volk; Dr Richard Kempton and Dr Julien Bourdet (CSIRO)
CONTACT	Herbert Volk Herbert.Volk@csiro.au

WORKSHOP 11:

DATE	Sunday 5th August 2012
TITLE	APPLICATION OF ASD and HYLOGGING SPECTRAL DATA to EXPLORATION and MINING: GETTING IT RIGHT and MAKING IT WORK FOR YOUR PROJECT AREA
LOCATION	CONGRESS VENUE
ORGANISERS	AusSpec International
PRESENTERS	Dr Sasha Pontual (AusSpec International)
CONTACT	Paul Gamson paul.gamson@ausspec.com

WORKSHOP 12:

DATE	Sunday 5th August 2012 (Morning only)
TITLE	FIELD PORTABLE XRF
LOCATION	CONGRESS VENUE
ORGANISERS	Members of Association of Applied Geochemists
PRESENTERS	Dr Gwendy Hall (Geological Survey of Canada)
CONTACT	David Cohen d.cohen@unsw.edu.au





WORKSHOP 13:

DATE	Sunday 5th August 2012, perhaps continuing Monday 6th August (evening)
TITLE	GEOETHICAL DECISION-MAKING
LOCATION	CONGRESS VENUE
ORGANISERS	AGID
PRESENTERS	Dr Vaclav Nemec (VP of Association of Geoscientists for International Development & Head of AGID working group for geoethics.) Professor Lidmila Nemcova (President Czech Society for Ethics in Economics)
CONTACT	Dr Vaclav Nemec lidmila.nemcova@quick.cz

During Congress

WORKSHOP 14:

DATE	Monday 6th August 2012 (evening)
TITLE	GPLATES: FREE SOFTWARE FOR TECTONIC RECONSTRUCTION AND SPATIO-TEMPORAL DATA ANALYSIS
LOCATION	CONGRESS VENUE
ORGANISERS	The University of Sydney
PRESENTERS	Prof Dietmar Muller, Dr Simon Williams, Dr Christian Heine, Dr Maria Seton and Dr Joanne Whittaker (The University of Sydney)
CONTACT	Dietmar Muller dietmar.muller@Sydney.edu.au

WORKSHOP 15:

DATE	Monday 6th August 2012 (evening)
TITLE	PROPERLY PLANNING and MANAGING EXPLORATION PROJECTS
LOCATION	CONGRESS VENUE
ORGANISERS	GHD
PRESENTERS	Phil Carrello (GHD Pty Ltd)
CONTACT	Phil Carrello phil.carrello@ghd.com

WORKSHOP 16:

DATE	Monday August 6th 2012
TITLE	COMPILATION AND INTERPRETATION OF LARGE MAGNETIC ANOMALY DATA SETS
LOCATION	CONGRESS VENUE
ORGANISERS	Geological Survey of Finland
PRESENTERS	Dr. Colin Reeves (Earthworks, The Netherlands) Prof. Dhananjay Ravat (University of Kentucky, USA) Dr. Peter Milligan (Geoscience Australia, Australia) Mr. Juha Korhonen (GTK, Finland)
CONTACT	Juha Korhonen juha.korhonen@gtk.fi

WORKSHOP 17:

DATE	Monday 6th, Tuesday 7th & Thursday 9th August 2012 (evening)
TITLE	FROM THE SOLAR PROTUBERANCE THAT CREATED THE EARTH TO THE VOLCANIC AND SEISMIC ACTIVITY OF OUR PLANET
LOCATION	CONGRESS VENUE
ORGANISERS	Union of Chemists: Bulgaria
PRESENTERS	Professor Emil Manev (Sofia University, Belgrade)
CONTACT	Emil Manev fhem@chem.uni-sofia.bg

WORKSHOP 18:

DATE	Monday 6th, Tuesday 7th & Thursday 9th August 2012 (evening)
TITLE	PRINCIPLES OF GEOLOGICAL HETEROGENEITY WITH APPLICATIONS
LOCATION	CONGRESS VENUE
ORGANISERS	Aramco
PRESENTERS	Dr JA Vargas – Guzman (Saudi Aramco)
CONTACT	Dr J A Vargas – Guzman anton_varguz@hotmail.com

WORKSHOP 19:

DATE	Tuesday 7th August 2012 (evening)
TITLE	STANDARDS FOR EDUCATION AND EMPLOYMENT IN THE GEOSCIENCES – GLOBAL ISSUES IN PROGRAM ACCREDITATION AND PROFESSIONAL LICENSURE
LOCATION	CONGRESS VENUE
ORGANISERS	American Geological Institute & American Institute of Professional Geologists
PRESENTERS	Dr Wayne Pennington (Michigan Technological University) Dr Christopher Keane (American Geological Institute) Dr William Siok (American Institute of Professional Geologists)
CONTACT	Christopher Keane keane@agiweb.org

WORKSHOP 20:

DATE	Tuesday 7th August 2012 (evening)
TITLE	HOT ROCKS – DISCOVER CO₂-FREE GEOTHERMAL ENERGY AND HOW TO TEACH ABOUT IT
LOCATION	CONGRESS VENUE
ORGANISERS	Teacher Earth Science Education Program (TESEP)
PRESENTERS	Greg McNamara
CONTACT	Greg McNamara eo@tesep.org.au

WORKSHOP 21:

DATE	Thursday 9th August 2012 (evening)
TITLE	ICDP PRIMER: AN INTRODUCTION TO THE INTERNATIONAL CONTINENTAL SCIENTIFIC DRILLING PROGRAM
LOCATION	CONGRESS VENUE
ORGANISERS	International Continental Scientific Drilling Program ICDP
PRESENTERS	Dr Ulrich Harms and Dr Thomas Wiersberg (ICDP)
CONTACT	Thomas Wiersberg icdp-outreach@gfz-potsdam.de

Post Congress

WORKSHOP 22:

DATE	Saturday 11th August 2012
TITLE	PRACTICAL STRATIGRAPHIC FORWARD MODELLING
LOCATION	UNIVERSITY OF QUEENSLAND
ORGANISERS	CSIRO
PRESENTERS	Dr Cedric Griffiths, Dr Chris Dyt and Dr Tristan Salles (CSIRO)
CONTACT	Cedric Griffiths cedric.griffiths@csiro.au

WORKSHOP 23:

DATE	Saturday 11th August 2012
TITLE	3D MINERAL MAPPING FROM DRILL CORE TO SPACE
LOCATION	VENUE TO BE CONFIRMED
ORGANISERS	CSIRO
PRESENTERS	Dr Carsten Laukamp, Dr Tom Cudahy and Dr Maarten Haest (Centre of Excellence in 3D Mineral Mapping – CSIRO)
CONTACT	Dr Carsten Laukamp carsten.Laukamp@csiro.au

WORKSHOP 24:

DATE	Saturday 11th & Sunday 12th August 2012
TITLE	ASIAN CURRENT RESEARCH ON FLUID INCLUSIONS IV (ACROFI)
LOCATION	VENUE TO BE CONFIRMED
ORGANISERS	Geoscience Australia
PRESENTERS	Professor Bob Bodnar (Virginia Tech USA)
CONTACT	Terry Mernagh Terry.Mernagh@ga.gov.au

WORKSHOP 25:

DATE	Monday 13th August 2012
TITLE	LESSONS LEARNT FROM AUDITING MINERAL RESOURCE ESTIMATES
LOCATION	VENUE TO BE CONFIRMED
ORGANISERS	AMC Consulting
PRESENTERS	Peter Stoker and Mark Berry (AMC)
CONTACT	Mark Berry mberry@amconsultants.com.au

WORKSHOP 26:

DATE	Tuesday 14th August 2012
TITLE	ASSESSMENT OF GEOLOGICAL UNCERTAINTY IN MINING AND MANAGEMENT OF RISK
LOCATION	VENUE TO BE CONFIRMED
ORGANISERS	AMC Consulting
PRESENTERS	Peter Stoker and Mark Berry (AMC)
CONTACT	Mark Berry mberry@amconsultants.com.au



Business Meetings

Schedule for IUGS-IGC Council meetings within 34th IGC

First meeting: Sunday, 5 August – all day meeting.
Second meeting: Thursday, 9 August – times to be advised.

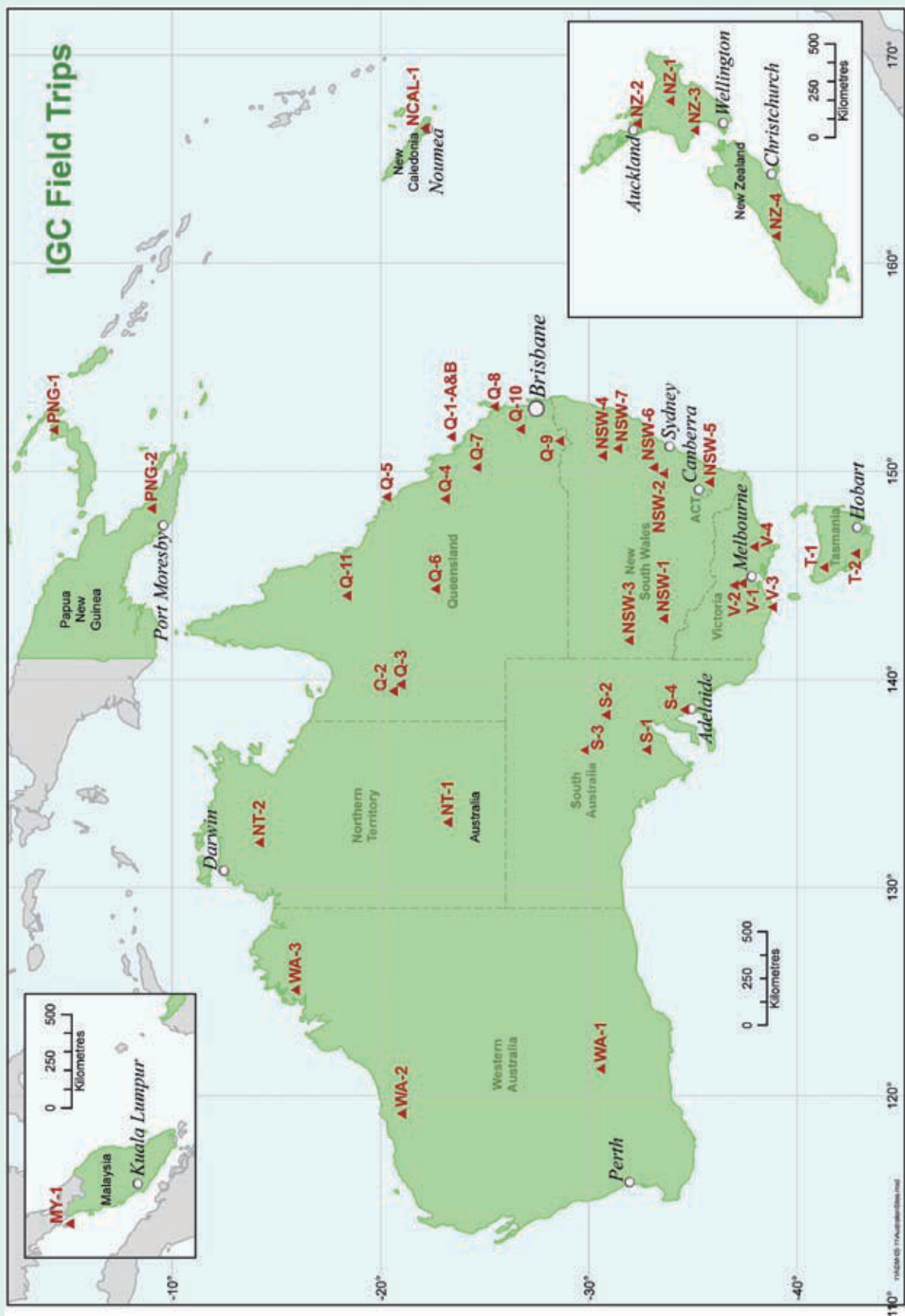
Schedule for IUGS Executive Committee and IGCC business meetings within the 34th IGC

Friday, 3 August	IUGS Bureau meeting
Saturday, 4 August	Half day (morning) extraordinary meeting for the outgoing IUGS Executive Committee. Half day (afternoon) meeting of outgoing IGCC.
Tuesday, 7 August	Late afternoon, meeting of the IUGS Executive Committee with Affiliated Organisations.
Saturday, 11 August	Half day (morning) extraordinary meeting for incoming IUGS EC. Half day (afternoon) meeting of incoming IGCC meeting.

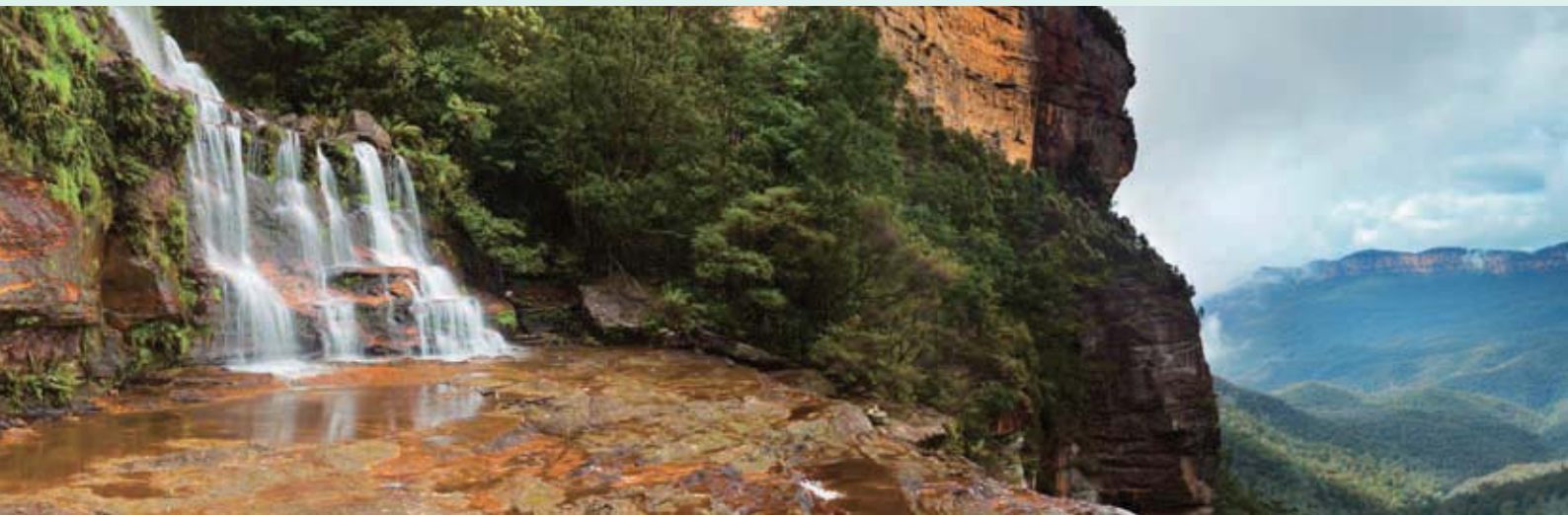
Other business meetings

All business meetings requested by other groups via the IGC website will be published in the final Congress program.

Field Trips



The references on the map above show locations of one of the primary points of interest for each field trip.



The 34th IGC is an ideal opportunity for delegates to explore the fascinating geology of Australia, New Zealand and the Asia Pacific region. An impressive range of pre and post-congress tours, designed to cater to the many divergent interests of the geoscientific community, is available and presented below.

Tour bookings

For detailed tour information and to book tours please go to:
www.quadrantaustralia.com/IGC/FieldTrips.shtml

Alternatively, please contact the official tour agent:

cindy.shanahan@quadrantaustralia.com

Quadrant Australia (Travel Licence No: 2TA 4890)

Tel: 02 6772 9066

Fax: 02 6772 9899

In-Congress and Day Trips

QLD-D1 Geology of Brisbane – Walking Trip

One Day Trip: Daily from 5 to 10 August 2012

Starts and finishes: Brisbane Convention and Exhibition Centre

Trip description: Easy self-guided walking trip covering metamorphosed Paleozoic deep sea sediments, Mesozoic ignimbrite, building stones on historical and heritage listed buildings, the Queensland Museum's collections of recently discovered dinosaurs, Aboriginal artefacts and native animals; all within three kilometres of the conference centre. Bring a camera, no geological hammers.

Highlights: Brisbane River, Botanical Gardens, Queensland Museum



QLD-D2

The Glasshouse Mountains: Geological Icons of Queensland

One Day Pre Trip: Saturday 4 August 2012

Starts and finishes: Selected Brisbane Congress hotels Numbers limited to 40

Trip description: The Glasshouse Mountains, north of Brisbane, were named by Lieutenant James Cook in 1770, and have Aboriginal names like Tibrogargan, Coonowrin and Ngungun. The 27 million year old group of 15 hypabyssal plugs and laccoliths are composed of metaluminous trachytes and peralkaline rhyolites which exhibit unusual and extreme geochemical characteristics indicating intensive fractional crystallisation.

Highlights: Spectacular Glasshouse Mountains, scenic and hilly hinterland, subtropical rainforest

Trip Leaders: Dr Benjamin Cohen and Professor Emeritus Tony Ewart, The University of Queensland

QLD-D3A

Stradbroke Island and Moreton Bay - Quaternary Sandcastles East of Brisbane

One Day Pre Trip: Saturday 4 August 2012

Starts and finishes: Selected Brisbane Congress hotels Numbers limited to 20

Trip description: Stradbroke Island is one of the world's largest sand islands with 285 square kilometres of vegetated dunes and heavy mineral and pure quartz sand mining adjacent to a National Park. Complex paleoclimatic history, freshwater lakes, aeolian deposits and sand dunes formed by wind transport, longshore drift during Quaternary high and low sea levels.

Highlights: Stradbroke Island, sand mining, wildlife, Moreton Bay Marine Park and National Park,

Trip Leader: Dr Kevin Welsh, The University of Queensland

QLD-D3B

Stradbroke Island and Moreton Bay - Quaternary Sandcastles East of Brisbane

One Day Post Trip: Saturday 11 August 2012

Starts and finishes: Selected Brisbane Congress hotels Numbers limited to 30

Trip description: Stradbroke Island is one of the world's largest sand islands with 285 square kilometres of vegetated dunes and heavy mineral and pure quartz sand mining adjacent to a National Park. Complex paleoclimatic history, freshwater lakes, aeolian deposits and sand dunes formed by wind transport, longshore drift during Quaternary high and low sea levels.

Highlights: Stradbroke Island, sand mining, wildlife, Moreton Bay Marine Park and National Park,

Trip Leader: Dr Kevin Welsh, The University of Queensland



QLD-D4A The Tweed Shield: Australia's Largest Cenozoic Volcano

One Day Pre Trip: Saturday 4 August 2012

Starts and finishes: Selected Brisbane Congress hotels Numbers limited to 30

Trip description: 100-km wide Tweed Volcano formed 25 to 23 million years ago. Stunning panoramic view points on edge of massive erosion caldera with vistas to Mt Warning at the volcanic core. 100-metre high waterfalls plunge over rhyolitic cliffs, with a chilled margin of perlite glass at their base.

Highlights: Gold Coast hinterland and World Heritage listed Rainforests of Gondwana

Trip Leaders: Dr Benjamin Cohen, The University of Queensland, Mr Warwick Willmott, and Dr John Jackson

QLD-D4B The Tweed Shield: Australia's Largest Cenozoic Volcano

One Day Post Trip: Saturday 11 August 2012

Starts and finishes: Selected Brisbane Congress hotels Numbers limited to 30

Trip description: Trip to the 100-km wide Tweed Volcano formed 25 to 23 million years ago. Stunning panoramic view points on edge of massive erosion caldera with vistas to Mt Warning at the volcanic core. 100-metre high waterfalls plunge over rhyolitic cliffs, with a chilled margin of perlite glass at their base.

Highlights: Gold Coast hinterland and World Heritage listed Rainforests of Gondwana

Trip Leaders: Dr Benjamin Cohen, The University of Queensland, Mr Warwick Willmott, and Dr John Jackson

QLD-D5 The Scenic Rim of Queensland: Volcanism, Xenoliths, Megacrysts, and Geomorphology of the Early Miocene Main Range Volcano

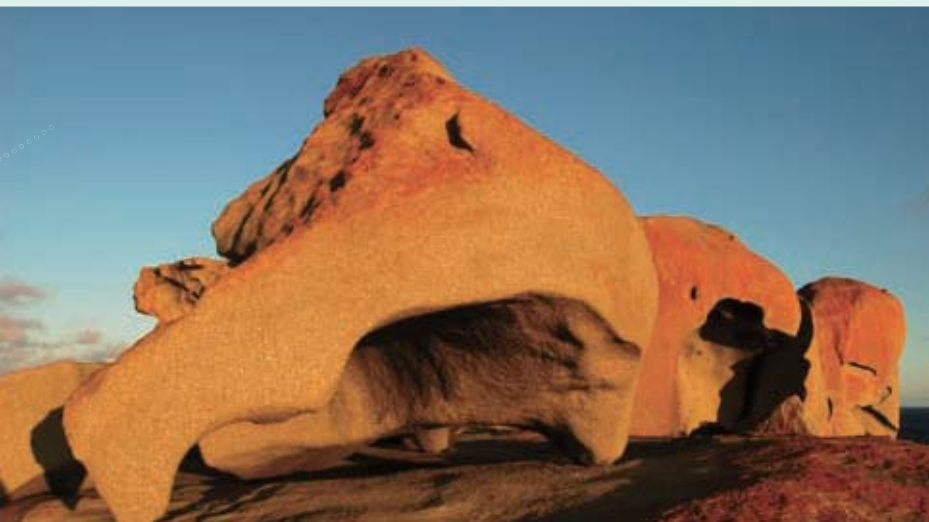
One Day Post Trip: Saturday 11 August 2012

Starts and finishes: Selected Brisbane Congress hotels Numbers limited to 40

Trip description: Miocene mafic volcanic units display nature of explosive and eruptive processes and mantle-derived materials with abundant xenocrysts and ultramafic xenoliths. Quarry outcrops display mafics ranging from hawaiites, olivine nephelenites, leucite basanites to nepheline benmoreites. Excellent and sometimes complex exposures.

Highlights: Scenery of the Great Dividing Range, the Garden City of Toowoomba and volcanic centres

Trip Leader: Dr Edwin Wiley and Dr Benjamin Cohen, The University of Queensland



QLD-D6 Engineering Geology in Southeast Queensland

One Day Pre Trip: Saturday 4 August 2012

Starts and finishes: Selected Brisbane Congress hotels Numbers limited to 30

Trip description: Visits to sites where infrastructure projects encounter difficult and demanding geological conditions -the "Moving Mountain", Wivenhoe Dam spillway and the vast gravel deposits in the Brisbane River around the productive farmland west of Brisbane in the Lockyer Valley.

Highlights: Moving Mountain, Lockyer Valley and Toowoomba bypass pilot tunnel

Trip Leader: Mr Ron Bathurst, Department of Transport and Main Roads

QLD-D7A Toowoomba Industrial Minerals

One Day Pre Trip: Saturday 4 August 2012

Starts and finishes: Selected Brisbane Congress hotels Numbers limited to 40

Trip description: Visit a number of sites supplying clay and shale for making clay bricks, bentonite and palygorskite from lake deposits underlying Cenozoic basalt, and also the Triassic-Jurassic Helidon Sandstone used for many famous Queensland buildings.

Highlights: Garden City of Toowoomba

Trip Leader: Mr John Siemon, J.E. Siemon Pty Ltd

QLD-D7B Toowoomba Industrial Minerals

One Day Post Trip: Saturday 11 August 2012

Starts and finishes: Selected Brisbane Congress hotels Numbers limited to 40

Trip description: Visit a number of sites supplying clay and shale for making clay bricks, bentonite and palygorskite from lake deposits underlying Cenozoic basalt, and also the Triassic-Jurassic Helidon Sandstone used for many famous Queensland buildings.

Highlights: Garden City of Toowoomba

Trip Leader: Mr John Siemon, J.E. Siemon Pty Ltd



QLD-D8A Sunshine Coast Construction Materials

One Day Pre Trip: Saturday 4 August 2012

Starts and finishes: Selected Brisbane Congress hotels Numbers limited to 40

Trip description: Field trip to the scenic Sunshine Coast inspecting construction materials. Quarries supply major deposits of coastal/dune and riverine sand and also from Carboniferous-Permian greenstones, hornfelsed carboniferous sediments, and oligocene trachytes, as well as large quarries of Triassic rhyolites and andesites.

Highlights: Scenery of the Sunshine Coast

Trip Leader: Mr John Siemon, J.E. Siemon Pty Ltd, and Mr Kyle Waye, Holcim (Australia) Pty Ltd

QLD-D8B Sunshine Coast Construction Materials

One Day Post Trip: Saturday 11 August 2012

Starts and finishes: Selected Brisbane Congress hotels Numbers limited to 40

Trip description: Field trip to the scenic Sunshine Coast inspecting construction materials. Quarries supply major deposits of coastal/dune and riverine sand and also from Carboniferous-Permian greenstones, hornfelsed carboniferous sediments, and oligocene trachytes, as well as large quarries of Triassic rhyolites and andesites.

Highlights: Scenery of the Sunshine Coast

Trip Leader: Mr John Siemon, J.E. Siemon Pty Ltd and Mr Kyle Waye, Holcim (Australia) Pty Ltd

QLD-D9 CSIRO's Queensland Centre for Advanced Technologies - Research Overview

One Day Pre Trip: Friday 3 August 2012

Starts and finishes: Selected Brisbane Congress hotels Numbers limited to 22

Trip description: CSIRO's Queensland Centre for Advanced Technology is a technology precinct for the resources, energy and associated advanced technology industries. The trip will highlight the Virtual Mining Centre, CSIRO's low emissions coal research focussed on coal gasification and syngas separation technologies, a demonstration on non-GPS dependant autonomous vehicles, advanced borehole logging research, and an overview of CSIRO coal research including coal characterisation, preparation, mine safety and optimisation research.

Highlights: The Virtual Mining Centre - an immersive space for controlling tele-robotics equipment as well as mine planning and visualisation.

Trip Leader: Dr Mike McWilliams, Chief, CSIRO Earth Science and Resource Engineering



Pre and Post-Congress field trips

QUEENSLAND

Q-1 A **Geology of Heron Island, Southern Great Barrier Reef**

Pre Trip: 6 days 5 nights Monday 30 July to Saturday 4 August 2012

Starts: Gladstone Marina, Gladstone **Finishes:** Brisbane
Numbers limited to 30

Trip description: Travel by launch, Reef Voyager, to Heron Island, part of the Capricorn-Bunker group located at the Southern end of the Great Barrier Reef. The reef can be examined for reef zonation, reef-building processes during the Holocene, carbonate sediment types, their erosion and dispersal, carbonate facies distribution and early diagenetic phenomena.

Highlights: Snorkelling in the tropical waters of the World Heritage listed Great Barrier Reef with its cays, corals and stunning marine life. Resort accommodation on beautiful tropical Heron Island.

Trip Leader: Dr John Jell, The University of Queensland

Q-1 B **Geology of Heron Island, Southern Great Barrier Reef**

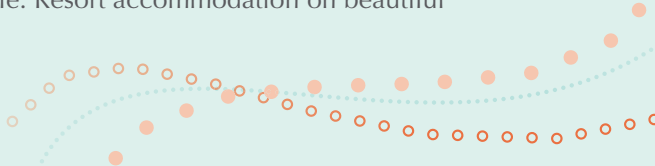
Post Trip: 6 days 5 nights Saturday 11 August to Thursday 16 August 2012

Starts: Brisbane **Finishes:** Gladstone Marina, Gladstone
Numbers limited to 30

Trip description: Travel by launch, Reef Voyager, to Heron Island, part of the Capricorn-Bunker group located at the Southern end of the Great Barrier Reef. The reef can be examined for reef zonation, reef-building processes during the Holocene, carbonate sediment types, their erosion and dispersal, carbonate facies distribution and early diagenetic phenomena.

Highlights: Snorkelling in the tropical waters of the World Heritage listed Great Barrier Reef with its cays, corals and stunning marine life. Resort accommodation on beautiful tropical Heron Island.

Trip Leader: Dr John Jell, The University of Queensland



Q-2

Mineralisation of the Mount Isa Region

Post Trip:

7 days 6 nights Saturday 11 August to Friday 17 August

Starts: Brisbane **Finishes:** Mount Isa Numbers limited to 14

Trip description:

Travel to outback Queensland to the Mount Isa region. The world-class mineral province includes major Cu, Pb, Zn, Ag, iron oxide Cu-Au, Mo, Re, phosphate and rare earth resources. Most mines are in Proterozoic host rocks and visits will cover origin, structure, and stratigraphy, with a comprehensive Time Space Chart detailing major vents in the Mount Isa - Cloncurry region.

Highlights:

Mount Isa, major mines, outback Queensland, wildlife

Trip Leader/s:

Dr Laurie Hutton, Geological Survey of Queensland and Dr Geoff Derrick, G M Derrick Geology

Q-3

Mount Isa Crustal Evolution

Pre Trip:

6 days 5 nights Monday 30 July to Saturday 4 August 2012

Starts: Mount Isa **Finishes:** Brisbane Numbers limited to 15

Trip description:

Travel into outback Queensland to study crustal evolution of the Mount Isa region, with its Proterozoic sequences, its relationships to the Precambrian Rodinia and Nuna (Columbia) supercontinents. Examine aspects of regional structure, chronostratigraphy, magmatic history and basin architecture in the western and eastern successions.

Highlights:

Mount Isa, mines, outback Queensland, wildlife

Trip Leader:

Dr George Gibson, Geoscience Australia

Q-4

The Queensland Energy Province - The Geology behind Coal, Coal-seam Gas, Oil, Traditional Gas, Groundwater, and Carbon Geostorage Opportunities

Post Trip:

5 days 4 nights Saturday 11 August to Wednesday 15 August 2012

Starts: Brisbane **Finishes:** Brisbane Numbers limited to 15

Trip description:

Queensland's energy province is dominated by the Bowen and Surat basins. Explore the geology behind the state's hydrocarbon potential and world class coal deposits. The field trip will cross both basins with a transect spanning the Permian to Middle Jurassic units with explanations of the interpretations of the depositional systems that host these resource endowments.

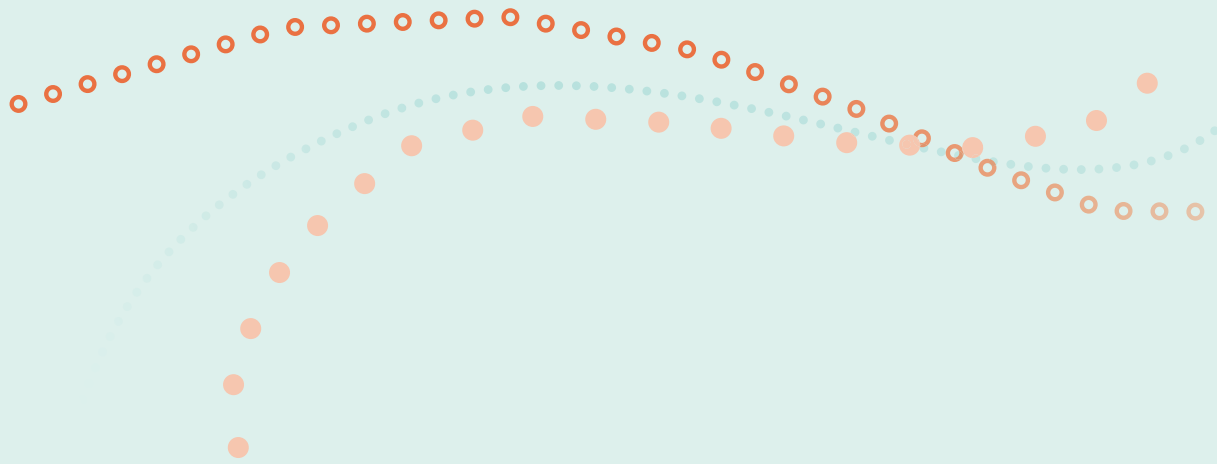
Highlights:

Hiking trails and indigenous art at Carnarvon National Park and the prime grazing and agricultural country that characterises Queensland, in addition to its natural and mineral resources

Trip Leader/s:

Dr Jonathan Hodgkinson and Mr Mike McKillop, Geological Survey of Queensland





Q-5

Cretaceous Volcanics and Tectonism of the Whitsunday Large Igneous Province

Post Trip: 7 days 6 nights Saturday 11 August to Friday 17 August 2012

Starts: Brisbane **Finishes:** Hamilton Island Numbers limited to 25

Trip description: All accommodation and travel is by charter yacht in the protected waters of the beautiful Whitsunday Island group. This Early Cretaceous Silicic Large Igneous Province with its large extrusive volume led to a different style of volcanic rifted margin. Visit spectacular views of tilted and partly exhumed volcanic sequences.

Highlights: Great Barrier Reef World Heritage area, Whitehaven Beach, yacht charter, marine life

Trip Leader: Dr Scott Bryan, Queensland University of Technology

Q-6

Cretaceous Faunas, Events and Geology of the Northern Great Artesian Basin

Pre Trip: 7 days 6 nights Sunday 29 July to Saturday 4 August 2012

Starts: Brisbane **Finishes:** Brisbane Numbers limited to 40

Trip description: Travel to Longreach on outback Queensland to visit key Cretaceous (Aptian-Late Albian) dinosaur, marine reptile and invertebrate fossil sites in the Northern Eromanga Basin. Visit the Lark Quarry Dinosaur trackways, and see specimens of *Australovenator*, *Diamantinasaurus* and *Kronosaurus*.

Highlights: Australia Age of Dinosaurs Museum, Stockman's Hall of Fame and Qantas Museum in the outback town of Longreach, wildlife and outback hospitality

Trip Leader: Dr Alex Cook, Queensland Museum

Q-7

Plio-Pleistocene Faunas and Chronology of Southeast and Central Queensland

Post Trip: 5 days 4 nights Saturday 11 August to Wednesday 15 August 2012

Starts: Brisbane **Finishes:** Rockhampton Numbers limited to 30

Trip description: Travel west from Brisbane into country Queensland where the rich sites of the Darling Downs continue to provide new data on the late Neogene development of the biota. The unique faunas of the Plio-Pleistocene of southeast Queensland provide valuable insights into the development, diversity and demise of the Australian Megafauna, and the evolution of rainforest faunas during the Pleistocene.

Highlights: Isla Gorge National Park, local wildlife

Trip Leader: Dr Gilbert Price, The University of Queensland

Q-8A

Fraser Island - Natural and Geological Beauty on the World's Largest Sand Island

Pre Trip: 5 days 4 nights Tuesday 31 July to Saturday 4 August 2012

Starts: Brisbane **Finishes:** Brisbane Numbers limited to 30

Trip description: Fraser Island is the world's largest sand island and is a fantastic modern analogue for the formation of sand dominated sedimentary deposits - both onshore and offshore, including at abyssal depths. See parabolic dunes up to 5-km long, economic concentrations of ilmenite, rutile, and zircon, perched lakes, and coloured sands.

Highlights: World Heritage listed Fraser Island, "coloured sands" lakes, rainforests, surf beaches, land and marine life

Trip Leader: Mr Mal Jones, Geological Survey of Queensland

Q-8B

Fraser Island - Natural and Geological Beauty on the World's Largest Sand Island

Post Trip: 5 days 4 nights Saturday 11 August to Wednesday 15 August 2012

Starts: Brisbane **Finishes:** Brisbane Numbers limited to 30

Trip description: Fraser Island is the world's largest sand island and is a fantastic modern analogue for the formation of sand dominated sedimentary deposits - both onshore and offshore, including at abyssal depths. See parabolic dunes up to 5-km long, economic concentrations of ilmenite, rutile, and zircon, perched lakes, and coloured sands.

Highlights: World Heritage listed Fraser Island, "coloured sands" lakes, rainforests, surf beaches, land and marine life

Trip Leader: Mr Mal Jones, Geological Survey of Queensland

Q-9A

Granite Belt (including visits to Wineries)

Pre Trip: 2 days 1 night Friday 3 August to Saturday 4 August 2012

Starts: Brisbane **Finishes:** Brisbane Numbers limited to 30

Trip description: Only three hours drive south west from the subtropical city of Brisbane is a very different landscape – the cool, mountainous Granite Belt. This region is home to Bald Mountain (Australia's "second largest rock monolith"), as well as the large granitic intrusions of The Pyramids, Balancing Rock and Castle Rock, as well as orchards and wineries. The trip also includes the World Heritage Rainforests of Gondwana national parks.

Highlights: Granite Belt scenery, Bald Mountain, Balancing Rock

Trip Leader: Mr Bob Bultitude, Geological Survey of Queensland



Q-9B

Granite Belt (including visits to Wineries)

Post Trip:

2 days 1 night Saturday 11 August to Sunday 12 August 2012

Starts: Brisbane **Finishes:** Brisbane Numbers limited to 30

Trip description:

Only three hours drive south west from the subtropical city of Brisbane is a very different landscape – the cool, mountainous Granite Belt. This region is home to Bald Mountain (Australia's "second largest rock monolith"), as well as the large granitic intrusions of The Pyramids, Balancing Rock and Castle Rock, as well as orchards and wineries. The trip also includes the World Heritage Rainforests of Gondwana national parks.

Highlights:

Granite Belt scenery, Bald Mountain, Balancing Rock

Trip Leader:

Mr Bob Bultitude, Geological Survey of Queensland

Q-10

Cracow-Gympie Gold

Post Trip:

3 days 2 nights Saturday 11 August to Monday 13 August 2012

Starts: Brisbane **Finishes:** Brisbane Numbers limited to 30

Trip description:

The trip visits the historic gold mining town of Gympie. Discovered in 1867, Gympie is noted for its high grade collectors' quality nuggety gold in lateral quartz veins. Visit the historic mining areas of Kilkivan and the Esk Trough, a volcanic trough of Permian-Triassic age with examples of porphyry style copper-gold deposits at Boobyjan and Coalstoun. Visits include the Cracow epithermal gold mine of low sulphidation style and the Mt Rawdon gold deposit hosted by breccias and altered volcanics related to a dacite intrusive event of late Triassic age.

Highlights:

Cracow, Gympie, Mount Rawdon Mines, southeast Queensland scenery

Trip Leader/s:

Mr Doug Young, AIG Queensland and ActivEX Ltd, and Mr Mike Erceg, Newcrest Mining

Q-11

North Queensland: 1700 million years of Earth History on the Proterozoic-Phanerozoic Margin of Eastern Australia

Post Trip:

6 days 5 nights Saturday 11 August to Thursday 16 August 2012

Starts: Brisbane **Finishes:** Townsville Numbers limited to 30

Trip description:

Travel to the scenic Cairns hinterland in Far North Queensland to traverse the Silurian to Devonian rocks of the Mossman Orogen. Cross the Tasman Line, a major north-south structure that separates largely Paleozoic rocks to the east from the Proterozoic rocks of the North Australian Craton. The Paleoproterozoic to Mesoproterozoic Etheridge Province, the Quaternary lavas at Copperfield Gorge, the world famous Undara Lava Tubes, the voluminous Carboniferous to Permian ignimbrite fields. Visit past and current mining at Chillagoe (gold and base metals) and Georgetown and Charters Towers (gold).

Highlights:

Tropical rainforest to savannah woodland, wildlife, outback scenery and culture, world-famous Undara Lava Tubes, mining history

Trip Leader/s:

Mr Ian Withnall, Geological Survey Queensland and Professor Bob Henderson, James Cook University



NEW SOUTH WALES

NSW-1 Lake Mungo - Early Man, Regolith, Landform Evolution

Post Trip: 6 days 5 nights Saturday 11 August to Thursday 16 August 2012

Starts: Brisbane **Finishes:** Melbourne Numbers limited to 20

Trip description: Scenic Lake Mungo is in the Willandra Lakes World Heritage Area. The study of the regolith has also revealed a fascinating history of landform evolution and climate change. Initially a freshwater lake, water levels gradually receded and prevailing westerly winds shaped an extensive lunette on its eastern shore, which has since been eroded to form the spectacular 'Walls of China'. Aboriginal occupation of the area is believed to extend back at least 40 000 years. Fossils of extinct megafauna have also been found.

Highlights: Indigenous history, fossils, Willandra National Park

Trip Leader: Mr Roger Cameron

NSW-2 Lachlan Orogen, World Class Porphyries in the Macquarie Arc

Post Trip: 6 days 5 nights Saturday 11 August to Thursday 16 August 2012

Starts: Brisbane **Finishes:** Sydney Numbers limited to 30

Trip description: The Macquarie Arc has a rich mineral endowment consisting of world-class porphyry copper-gold deposits as well as other deposit styles. Examine the nature and geneses of some key deposits (Cadia, Northparkes, Cowal among others) within the tectonic framework of the evolution and then accretion of the arc. The Macquarie Arc system records ~50 million years of subduction-related development along the boundary between east Gondwana and the paleo-Pacific plate.

Highlights: Copper-gold mines, central New South Wales

Trip Leader/s: Associate Professor David Cooke, Dr Dick Glen and Dr Cam Quinn

NSW-3 Proterozoic

Broken Hill Mines and the New South Wales

Post Trip: 6 days 5 nights Saturday 11 August to Thursday 16 August 2012

Starts: Brisbane **Finishes:** Sydney Numbers limited to 20

Trip description: Travel to outback New South Wales to Broken Hill. The super-giant Broken Hill silver-lead-zinc deposit is hosted by the Paleoproterozoic Willyama Supergroup. Examine the stratigraphy, mineralisation and regional structure of the Willyama Supergroup and also visit famous mining heritage sites, including remnants of the outcropping gossan of the orebody. The Neoproterozoic Adelaidean cover to the Willyama Supergroup.

Highlights: Broken Hill city and mines, outback New South Wales

Trip Leader: Professor Ian Plimer, The University of Adelaide

NSW-4

The New England Batholith - Felsic Magmatism and Lithophile Dominated Mineral Systems in a Primitive Continental Marginal Arc

Pre Trip: 5 days 4 nights Tuesday 31 July to Saturday 4 August 2012

Starts: Sydney **Finishes:** Brisbane Numbers limited to 20

Trip description: Trace the magmatic record present in the granites and volcanics in the New England Orogen and their metallogenesis. The southern New England Orogen contains an extensive record of Carboniferous to Triassic S-, I- and A-type plutonic-volcanic felsic dominated magmatism emplaced in a continental marginal arc setting. The southern portion of the Orogen is characterised by voluminous high-K, highly fractionated granites associated with lithophile dominated Sn, W, Mo, Au, Bi, Zn-Ag-In mineralisation.

Highlights: New England scenery, mines

Trip Leader/s: Dr Phillip Blevin, New South Wales Trade & Investment, and Professor Bruce Chappell, University of Wollongong

NSW-5

Bega - Murrumbidgee Batholiths Pluton Construction Revealed: Looking Within and Below Batholiths

Post Trip: 6 days 5 nights Saturday 11 August to Thursday 16 August 2012

Starts: Brisbane **Finishes:** Sydney Numbers limited to 20

Trip description: This field trip will focus on two contrasting, classic batholiths in the Lachlan Orogen, the I-type Bega and S-type Murrumbidgee batholith of southeast Australia. Examine incremental growth and differentiation processes in plutons, including depositional features such as load casts, cross-beds, graded beds, collapsed rafts of roof and wall-rocks, magma mixing zones, syn-plutonic composite dykes, mafic enclave swarms in the making, and complex but spectacular migmatites plus a classic metamorphic complex.

Highlights: Exquisite and rugged coastal and mountainous scenery of the southern New South Wales coast and highlands, passing through Canberra

Trip Leader/s: Professor Bill Collins, University of Newcastle and Dr Simon Richards, James Cook University



NSW-6

A Banquet of New South Wales Geology, Geohistory, Dead Fish and Great Wines!

Pre Trip: 7 days 6 nights Monday 30 July to Sunday 5 August 2012

Starts: Sydney **Finishes:** Brisbane Numbers limited to 20

Trip description: View the geology and geohistory of four distinct regions, the Hunter Valley, the Blue Mountains, the Central West and the Canberra – Wee Jasper areas. See how the region's geology underpins its ecology, local history, industry and agriculture, as well as every other aspect of life in those areas today. Travel into the Paleozoic Lachlan Orogen with its extensive copper-gold deposits and famous Late Devonian Canowindra Fish Fossils. Participants can dig for fish fossils at a nearby quarry and enjoy the prizewinning wines of this region.

Highlights: Hunter Valley, Blue Mountains, fish fossils, mines, local wines and Canberra

Trip Leader/s: Ms Monica Yeung, Gondwana Dreaming Pty Ltd, Dr Alex Ritchie, Australian Museum, and Mr Andrew Wooldridge

NSW-7

Oroclinal Bending in the Southern New England Orogen (Brisbane to Sydney)

Post Trip: 4 days 3 nights Saturday 11 August to Tuesday 14 August 2012

Starts: Brisbane **Finishes:** Sydney Numbers limited to 20

Trip description: The southern New England belt, in the area between Brisbane and Sydney, is a Late Paleozoic to Early Mesozoic subduction-related orogen. The field trip will explore the tectono-magmatic evolution of the orogen and the development of a series of tight oroclines. See the different components of the bent orogen and make observations on the multiple episodes of magmatism and deformation.

Highlights: Spectacular coastal and mountainous scenery, fascinating geology, world-class wineries

Trip Leader: Dr Gideon Rosenbaum, The University of Queensland

VICTORIA

V-1

Factors Influencing Volcanic Eruption Styles, in the Intraplate, Basaltic, Late Cainozoic Newer Volcanics Province, Victoria and South Australia

Pre Trip: 6 days 5 nights Tuesday 31 July to Sunday 5 August 2012

Starts: Melbourne **Finishes:** Brisbane Numbers limited to 35

Trip description: The Newer Volcanics Province is the youngest and arguably the only still active volcanic province in Australia. It last erupted 4,500 years ago and preserves some 400 eruption centres and lava flow plains, including some of the most spectacular maars worldwide. Visit some of the best preserved volcanoes and volcanic successions in the province, en route to Mt Gambier in South Australia, the youngest volcano in Australia. Return via the Great Ocean Road and to visit a Tertiary surtseyan volcanic succession.

Highlights: Spectacular scenery along the Great Ocean Road, volcanology, local Australian wines and the opportunity to see different native animals

Trip Leader: Emeritus Professor Ray Cas, Monash University

V-2

Central Victorian Historical Gold Mines and Recent Wines

Post Trip: 5 days 4 nights Saturday 11 August to Wednesday 15 August 2012

Starts: Brisbane **Finishes:** Melbourne Numbers limited to 20

Trip description: The central Victorian region is one of the classic orogenic gold provinces of the world. The 19th century gold boom left an indelible economic legacy on the Australian economy, the results of which can be seen in the many beautiful and historic towns and cities. Trace the Paleozoic evolution of the region, with an overview of the structure, mineralogy and alteration products of gold mineralisation through visits to road cuttings, historic workings and underground mines in the Bendigo region.

Highlights: Historic Ballarat, Eureka Stockade show, heritage buildings, Bendigo mines, gold-mining history and wines

Trip Leader: TBA, AMIRA International

V-3

Otway Basin Carbon Capture and Storage

Post Trip: 5 days 4 nights Saturday 11 August to Wednesday 15 August 2012

Starts: Brisbane **Finishes:** Melbourne Numbers limited to 15

Trip description: Investigate the carbon capture and storage activity and research in the Otway Basin. View the energy and environmental aspects of the region including the carbon capture and storage facility at Port Campbell, methane storage, gas processing, CO₂ production at Boggy Creek, as well as geothermal and wind operations. Drive along the scenic coastal Great Ocean Road, and pass through the Pliocene-Pleistocene volcanoes in the Kanawinka Global Geopark.

Highlights: Spectacular scenery along the Great Ocean Road, Kanawinka Global Geopark

Trip Leader/s: Mr Rob Langford, Geoscience Australia and Dr Peter Tingate, Department of Primary Industries and Department of Sustainability and Environment



V-4

The Brown Coal Mines of Gippsland

- Post Trip:** 5 days 4 nights Sunday 12 August to Thursday 16 August 2012
Starts: Brisbane **Finishes:** Melbourne Numbers limited to 20
- Trip description:** East of Melbourne in the Gippsland area are the massive brown coal deposits of the Latrobe Valley where coal is mined for just-in-time supply of base load power for the state. The three mines excavate seams up to 130 m thick. The lignite lithotypes and degree of coalification have sufficiently affected properties of the various seams that the boilers of each power station are attuned differently to the local fuel feeds.
- Highlights:** Yallourn, Hazelwood/Morwell, Loy Yang Mines; immersion in an industrial-rural landscape; historic Walhalla Gold Mine and town; superb natural timber and scenic landscapes
- Trip Leader:** Dr Boyd B. Dent, Monash University

TASMANIA

T-1

North Coast Tectonic and Sedimentary Sequences

- Post Trip:** 6 days 5 nights Saturday 11 August to Thursday 16 August 2012
Starts: Brisbane **Finishes:** Launceston Numbers limited to 20
- Trip description:** Travel to Tasmania where the trip provides an overview of the late Proterozoic to late Paleozoic geology of Western Tasmania Terrane. There are Late Proterozoic shallow water sedimentary rocks, Middle Cambrian ophiolite obduction, middle Cambrian volcanic and sedimentary sequences. To the east a deep water clastic sequence forms the East Tasmania Terrane and this transition is exposed in northern Tasmania.
- Highlights:** Cave Trip (Ordovician limestone) and a winery visit in the beautiful Tamar River region. Spectacular coastal, highland and forest scenery
- Trip Leader/s:** Dr Ron Berry, University of Tasmania and Dr Stuart Bull, University of Tasmania

T-2

Ore Deposits of Tasmania

- Post Trip:** 6 days 5 nights Saturday 11 August to Thursday 16 August 2012
Starts: Brisbane **Finishes:** Hobart Numbers limited to 24
- Trip description:** Travel to Tasmania to visit the highly mineralized and scenic Cambrian Mt Read Volcanics which host the Mt Lyell copper deposits, the Rosebery, Hercules and Hellyer Pb/Zn/Cu/Au deposits, and the Henty gold deposit. See the Renison and Mt Bischoff tin deposits, the new Avebury Nickel mine, and the Savage River magnetite deposits.
- Highlights:** Cradle Mountain National Park, spectacular mountain and forest scenery, abundant and unusual wildlife and a colourful mining-related history
- Trip Leader:** Dr Geoffrey Green, Mineral Resources Tasmania

SOUTH AUSTRALIA

S-1 **Insights into the Archean and Proterozoic geology of the Gawler Craton: a field trip through the southern Gawler Craton**

- Pre Trip:** 8 days 7 nights Saturday 28 July to Saturday 4 August 2012
Starts: Adelaide **Finishes:** Brisbane Numbers limited to 16
- Trip description:** Travel across the beautiful Yorke and Eyre Peninsulas of South Australia where early Mesoproterozoic mineralisation in the eastern Gawler Craton encompasses an IOCG–U province and a Au-dominated province. Investigate lithological, structural, metamorphic and metallogenic features covering a c. 1600 million year history of the Gawler Craton.
- Highlights:** Spectacular coastal outcrops, fishing harbour of Port Lincoln, semi-arid grazing lands and wheat-sheep farming country
- Trip Leader/s:** Professor Martin Hand, The University of Adelaide and Dr Anthony Reid, Geological Survey of South Australia

S-2 **Arkaroola - Flinders Ranges - Astrobiology and Planetary Geology**

- Pre Trip:** 7 days 6 nights Monday 30 July to Sunday 5 August 2012
Starts: Adelaide **Finishes:** Brisbane Numbers limited to 18
- Trip description:** Travel to the Flinders Ranges where the spectacular Mount Painter Inlier is host to some of the oldest rocks in Australia and some of the earliest signs of life. Visit a range of interesting planetary/geology sites such as: Pichie Richie Gorge, Bunyeroo Gorge, the Brachina Gorge, Paralana radioactive hot springs, stromatolite occurrences, the Mt Gee fossil hydrothermal system, Mt Fitton talc occurrence, stony deserts and sand dunes.
- Highlights:** Spectacular Flinders Ranges, Mount Painter topography, stony deserts, sand dunes, springs and gorges
- Trip Leader/s:** Ms Matilda Thomas and Dr Jonathan Clarke, Geoscience Australia with Professor Malcolm Walter FAA University of New South Wales, and/or Professor Vic Gostin, The University of Adelaide

S-3 **Uranium Geology of South Australia**

- Post Trip:** 4 days 3 nights Sunday 12 August to Wednesday 15 August 2012
Starts: Brisbane **Finishes:** Adelaide Numbers limited to 10
- Trip description:** Travel by private charter flight to visit remote mine sites including Olympic Dam, the world's largest ore body. The trip will be a transect through the ages of a uranium-rich mineral system originating in the earliest Mesoproterozoic of South Australia and will examine various uranium-mineralised areas in the context of Mineral Systems, and the relationship between each type. See various breccia-hosted, iron oxide-copper-gold and sediment hosted systems in a sequence from older to younger to illustrate (re)mobilisation of metal. The importance of structural controls, even on younger systems, will be demonstrated.
- Highlights:** Gawler and Curnamona provinces, Olympic Dam, Beverley Uranium Mine, charter flights over vast areas of South Australia
- Trip Leaders:** Dr Martin Fairclough and Mr Steve Hore, Geological Survey of South Australia

S-4

Ediacaran-Cambrian of South Australia

- Post Trip:** 8 days 7 nights Saturday 11 August to Saturday 18 August 2012
Starts: Brisbane **Finishes:** Adelaide Numbers limited to 16
- Trip description:** Examine the oldest preserved multicellular organisms in the Ediacaran of the Flinders Ranges, as well as some of the spectacular Cambrian biodiversity of South Australia. Visit the fossiliferous carbonate successions at Ajax Mine and Mt Scott Range, plus a visit to the lower Cambrian Emu Bay Shale Lagerstätte on Kangaroo Island, which preserves a diverse marine biota including soft-bodied animals.
- Highlights:** Spectacular scenery, wildlife and geology, Kangaroo Island
- Trip Leaders:** Dr Jim Gehling, South Australian Museum and Adjunct Associate Professor Jim Jago, University of South Australia

NORTHERN TERRITORY

NT-1

Geology of Uluru - Alice Springs Region, Ayers Rock, Meteorite Crater

- Post Trip:** 6 days 5 nights Saturday 11 August to Thursday 16 August 2012
Starts: Brisbane **Finishes:** Alice Springs Numbers limited to 20
- Trip description:** Traverse through the entire Amadeus Basin sequence, including Neoproterozoic carbonates and glacials and Devonian foreland basin deposits. See the complex structural interaction between basement and cover in Ormiston Gorge and producing gas fields at Mereenie or Palm Valley. Visit Gosses Bluff, which forms the exposed remnants of the central uplift of a Cretaceous comet impact, Kings Canyon, which will combine spectacular scenery and geomorphology with an opportunity to view well-exposed Ordovician fluvial and marine deposits. The trip will end at the iconic Uluru and Kata-Tjuta (Ayers Rock and the Olgas) which preserve arkoses and conglomerates that were deposited in a deep foreland basin during the late Neoproterozoic to Cambrian.
- Highlights:** Uluru/Ayers Rock, Kata Tjuta/the Olgas, Kings Canyon, indigenous culture, wildlife
- Trip Leader:** Ms Christine Edgoose, Northern Territory Geological Survey

NT-2A

Geology of Kakadu-Litchfield, Aboriginal Culture

- Pre Trip:** 7 days 6 nights Sunday 29 July to Saturday 4 August 2012
Starts: Darwin **Finishes:** Brisbane Numbers limited to 20
- Trip description:** This trip combines the world heritage wetlands, scenery and Indigenous culture of Kakadu National Park with an opportunity to visit one of Australia's premier Paleoproterozoic mineral fields. View the geology and mineral deposits of the Pine Creek Orogen, the Ranger unconformity-related uranium mine in Kakadu, the historical Rum Jungle uranium and polymetallic mineral field and the Pine Creek goldfield. See the Paleoproterozoic geology and tectonic evolution of the Pine Creek Orogen, including Archean basement.
- Highlights:** Kakadu National Park, wetlands, indigenous culture, Aboriginal art
- Trip Leader/s:** Dr Andrew Wygralak and Dr Julie Hollis, Northern Territory Geological Survey

NT-2B

Geology of Kakadu-Litchfield, Aboriginal Culture

Post Trip: 7 days 6 nights Saturday 11 August to Friday 17 August 2012

Starts: Brisbane **Finishes:** Darwin Numbers limited to 20

Trip description: This trip combines the world heritage wetlands, scenery and Indigenous culture of Kakadu National Park with an opportunity to visit one of Australia's premier Paleoproterozoic mineral fields. View the geology and mineral deposits of the Pine Creek Orogen, the Ranger unconformity-related uranium mine in Kakadu, the historical Rum Jungle uranium and polymetallic mineral field and the Pine Creek goldfield. See the Paleoproterozoic geology and tectonic evolution of the Pine Creek Orogen, including Archean basement.

Highlights: Kakadu National Park, wetlands, indigenous culture, Aboriginal art

Trip Leader/s: Dr Andrew Wygalak and Dr Julie Hollis, Northern Territory Geological Survey

WESTERN AUSTRALIA

WA-1

Yilgarn Craton: geological setting of gold and nickel deposits in the Eastern Goldfields

Post Trip: 7 days 6 nights Saturday 11 August to Friday 17 August 2012

Starts: Brisbane **Finishes:** Perth Numbers limited to 20

Trip description: The Eastern Goldfields Superterrane of the Yilgarn Craton hosts world-class gold and komatiite-hosted nickel deposits within classic Neoproterozoic granite-greenstones. See the historic gold mining town of Kalgoorlie. Visit major mines and examine their geological setting. The Yilgarn is covered by a thick regolith blanket that includes salt lakes defining a vast paleodrainage system, transported material, extensive laterite hosting huge nickel resources, and deeply weathered in-situ rock.

Highlights: Historic gold-mining town of Kalgoorlie, Super pit, Western Australia outback and wildlife, gold-rush history

Trip Leader: Mr Stephen Wyche, Geological Survey of Western Australia

WA-2

A billion years of Earth history: a geological transect through the Pilbara Craton and the Mount Bruce Supergroup

Pre Trip: 8 days 7 nights Saturday 28 July to Saturday 4 August 2012

Starts: Perth **Finishes:** Brisbane Numbers limited to 17

Trip description: The Pilbara region of remote Western Australia contains the world's best preserved early Archean rocks and the oldest fossils occur east of Pilbara granite-greenstones which contain significant mineral deposits that include iron ore, gold, base metals, tin, tantalum, and barite. Sections illustrate the development of the Earth's crust between 3520 and 3420 Ma. The North Pole 3500-3420 Ma stromatolites provide our best evidence for Earth's earliest life and the ancient environments. Examine late Archean to early Proterozoic Fortescue and Hamersley Basins which host the huge Pilbara iron ore mines.

Highlights: Pilbara Craton, Marble Bar, Fortescue and Hamersley Basins, Meteorite impact crater, spectacular remote area camping

Trip Leader/s: Dr Arthur Hickman and Dr Martin Van Kranendonk, Geological Survey of Western Australia



WA-3 **Geology of the Kimberley. Paleoproterozoic Tectonics and Mineralization, Neoproterozoic Glaciations, Devonian Barrier Reef**

Pre Trip: 9 days 8 nights Friday 27 July to Saturday 4 August 2012

Starts: Broome **Finishes:** Brisbane Numbers limited to 16

Trip description: Cross the Kimberley Plateau to Kununurra and to Halls Creek, the scene of Western Australia's first gold rush. See the Paleoproterozoic granites, gabbros and metamorphic rocks, and overlying sandstones. Visit Neoproterozoic glacial deposits, the Devonian barrier reef complex at Windjana Gorge and the sandstone karst landscapes of the Bungle Bungle Range. Mineralization includes diamonds, Argyle, iron ore, Ni-Cr-PGE, Cu-Zn VHMS deposits and gold, Zn-Pb MVT deposits, and hydrocarbons in the Canning Basin

Highlights: Unique plants and wildlife, Aboriginal history and culture, spectacular scenery and spectacular remote area camping.

Trip Leader/s: Dr Ian Tyler and Dr Peter Haines, Geological Survey of Western Australia, Dr Roger Hocking, State Geology

NEW ZEALAND

NZ-1 **North Island: Active Volcanism, Neotectonics, Geothermal Activity**

Post Trip: 6 days 5 nights Saturday 11 August to Thursday 16 August 2012

Starts: Wellington, New Zealand **Finishes:** Auckland, New Zealand
Numbers limited to 20

Trip description: Examine the Taupo Volcanic Zone (TVZ) of the central North Island. Visit White Island, New Zealand's most active volcano. Other highlights will be the Newmont Martha epithermal gold mine in Waihi, the Wairakei Geothermal Field near Taupo, Lake Taupo occupying the Taupo Caldera, New Zealand's 'super volcano'; geothermal hotspots at Waimangu and Wai-O-Tapu near Rotorua; Ruapehu, Ngauruhoe and Tongariro volcanoes; tectonic deformation and basement geology and geological history of New Zealand.

Highlights: Whakatane, White Island, Taupo, Wellington, Te Papa (National Museum), GNS Science

Trip Leader/s: Dr Hamish Campbell, Dr Tony Christie and Professor Alex Malahoff, Geological and Nuclear Sciences, NZ

NZ-2

North Island - Auckland Volcanic Field

Pre Trip: 3 days 2 nights Thursday 2 August to Saturday 4 August 2012

Starts and finishes: Auckland, New Zealand Numbers limited to 20

Trip description: Auckland is built on an active volcanic field comprising about 50 basaltic cones and maars, the youngest of which is only 600 years old. Visit the Auckland War Memorial Museum's newly built volcano exhibit for an overview of the geological, economic, and social situation. Trip some of the most prominent cones. The trip ends with a visit to the city's and region's Civil Defence and Emergency Management services.

Highlights: Auckland Museum, Auckland City of Volcanoes

Trip Leader: Dr Jan Lindsay, University of Auckland

NZ-3

Pliocene to Miocene shelf to basin floor sequences of Wanganui and Taranaki basins, New Zealand

Post Trip: 5 days 4 nights Saturday 11 August to Wednesday 15 August 2012

Starts: Wellington, New Zealand **Finishes:** Auckland, New Zealand
Numbers limited to 20

Trip description: Examine all aspects of Taranaki oil and gas exploration and production: Cretaceous-Cenozoic stratigraphy, sedimentology, structure, source rocks, reservoir rocks, cap rocks. The major source of hydrocarbons (oil and gas) is coal of Late Cretaceous to Eocene age. The Wanganui Basin demonstrates Plio-Pleistocene integrated stratigraphy, and a superb marine Pleistocene record.

Highlights: Waitomo Caves, New Plymouth, Mount Taranaki, Wanganui, Wellington, Te Papa (National Museum), GNS Science

Trip Leader/s: Dr Greg Browne, Dr Peter King, Dr Malcolm Arnot, and Dr Kyle Bland, Geological and Nuclear Sciences, NZ

NZ-4

South Island: Plate Boundary Structure, Alpine Fault, Glaciation

Post Trip: 5 days 4 nights Saturday 11 August to Wednesday 15 August 2012

Starts: Christchurch, New Zealand **Finishes:** Auckland, New Zealand
Numbers limited to 20

Trip description: The Alpine Fault moves approximately 8 m in magnitude 8 earthquakes every 200-400 years and accommodates nearly three quarters of the 39 mm/yr plate motion through South Island. Oblique strike-slip deformation has uplifted the Southern Alps, offset glacial and fluvial landforms, and exhumed a classic section of fault rocks (cataclasites and mylonites) from up to 35 km depth. See the geomorphic expression of the Alpine Fault, the geological setting and fault rocks, and visit proposed sites for scientific drilling.

Highlights: Southern Alps, Mt Cook, Fox Glacier, Franz Josef Glacier, Hokitika and the spectacular West Coast. Three nights accommodation at 5 star Te Waonui Forest Retreat at Franz Josef

Trip Leader/s: Dr Rupert Sutherland, Geological and Nuclear Sciences, NZ and Dr Virginia Toy, University of Otago



MALAYSIA

MY-1 Langkawi Geopark

Post Tour: 4 days 3 nights Saturday 11 August to Tuesday 14 August 2012

Starts: Langkawi, Malaysia **Finishes:** Langkawi, Malaysia

Tour description: Langkawi was declared as a member of the UNESCO global Network of National Geoparks in June 2007 and there are over 90 interesting geosites in the 99 islands within the geopark. The Paleozoic sequence includes the Cambro-ordovician shallow marine clastic Machinchang Formation accessible by cable car, fossiliferous limestones of the Ordovician-Silurian Gondwana-derived glacial-marine pebbly mudstones of the Carboniferous-Permian and Permian Limestone with some intruded by Triassic and Cretaceous granites.

Highlights: Spectacular island karst, beautiful beaches with interesting geomorphological features, tropical jungle and friendly villagers with lots of interesting local legends

Trip Leader: Professor Dr Lee Chai Peng, University of Malaysia

NEW CALEDONIA

NCAL-1 New Caledonia Subduction/Obduction System, HP-LT Complex, Ophiolites, Syntectonic Basins. Neogene Tropical Weathering and Nickel Resources Holocene Landforms, Barrier Reef, Neotectonics, Isle of Pines.

Pre Tour: 7 days 6 nights Sunday 29 July to Saturday 4 August 2012

Starts: Noumea **Finishes:** Noumea

Tour description: See an integrated view of the subduction/obduction system and subsequent supergene evolution that lead to the formation of the nickel ores of New Caledonia. Visit the blueschist-eclogite belt of northern New Caledonia to see the tectonic relationships between subducted and exhumed mélange with foreland basins and ophiolite. Visit an operating nickel mine with ultramafic protoliths and tropical oxidised soils which host the nickel ore and the famous garnierite crack seals.

Highlights: Amedee lighthouse, Isle of Pines, World Heritage Lagoon, coral reefs, nickel mine

Trip Leader/s: Professor Dominique Cluzel, University of New Caledonia, and Mr Pierre Maurizot, B.R.G.M. Nouméa



PAPUA NEW GUINEA

PNG-1 Rabaul Caldera - Historical and Prehistorical Volcanism

Post Tour:	4 days 3 nights Saturday 11 August to Tuesday 14 August 2012
	Starts: Rabaul, Papua New Guinea Finishes: Rabaul, Papua New Guinea
Tour description:	Rabaul Caldera is one of 15 active volcanoes in Papua New Guinea. Rabaul Town is located within this active caldera complex, which measures 14km N-S and about 9km S-W. During the latest caldera-forming eruption, about 1,400 years ago, much of the south-eastern part of the volcano was removed, forming the deepwater Simpson Harbour. In Rabaul Town there is ongoing vulcanian-type activity.
Highlights:	Rabaul volcano, Simpson Harbour and township
Trip Leader/s:	Mr Herman Patia, Mr Steve Saunders and Ms Ima Itikarai, Rabaul Volcano Observatory

PNG-2 Port Moresby - Popondetta - Kokoda - Madang - Accretionary Prism Subduction Complex and Ophiolites

Pre Tour:	6 days 5 nights Tuesday 31 July to Sunday 5 August 2012
	Starts: Port Moresby, Papua New Guinea Finishes: Port Moresby, Papua New Guinea
Tour description:	Visit a road exposure of a thrust-faulted sequence of Paleocene and Eocene deep marine fine siliciclastic sediments, interpreted as a Late Eocene or Early Oligocene accretionary complex. Further west the complex is juxtaposed with accreted Oligo-Miocene slope sediments. Examine exposures of PUB ophiolite and Owen Stanley Metamorphics along the Popondetta-Kokoda road. These rocks record a Paleocene (58 Ma) arc-continent collision. Visit the Ramu NiCo Mine.
Highlights:	Great mountain scenery, colourful cultural events and opportunities to visit historic World War 2 Kokoda campaign sites
Trip Leader/s:	Professor Hugh Davies and Dr Russell Perembo, University of Papua New Guinea, and Mr Leo Jonda



Exhibition and Sponsorship Opportunities

The 34th IGC provides a unique opportunity for industry, corporations, research organisations, professional societies and government departments to engage with the global geoscience community. Please download the Sponsorship Prospectus from the Congress website (www.34igc.org) and select the GeoExpo and Sponsorship option). Alternatively, contact sponsor@34igc.org or call + 61 7 3368 2644 to discuss sponsorship packages.

The GeoExpo will be held during the 34th IGC and will be a focal point of interest for all delegates. The GeoExpo will be conveniently located in Exhibition Halls 1 and 2 at the Brisbane Convention and Exhibition Centre, immediately adjacent to the auditoria and meeting rooms that will house 34th IGC sessions.

Exhibition space in the GeoExpo is selling fast, with over 40% of available spaces already sold (as at end September, 2011). If you are interested in exhibiting in the GeoExpo, you are advised to book your space as soon as possible. You can download an exhibition proposal at www.34igc.org (select the GeoExpo & Sponsorship option).

2nd World YES Congress - Early Career Earth Scientists For Society

The YES Network, which is open to all Earth scientists up to 35 years old, who may join online (<http://www.networkyes.org/>) free of charge, will hold its second congress within the 34th IGC.

YES members may apply for support to attend the 34th IGC under the GeoHost Funded Delegate Program (www.34igc.org), which is partially sponsored by the IUGS' Hutchison "Young Scientist" Foundation, the goal of which is the promotion of the professional growth of deserving, meritorious young geoscientists from around the world by supporting their participation in important IUGS-sponsored conferences.

Presenting the perspectives of future geoscience leaders on major issues, the YES Congress will include an IGC symposium on overcoming geoscience challenges in the 21st Century as well as an evening program of workshops, roundtable discussions and other events.

YES Network encourages all members to take an active part in both the IGC and YES programs and also welcomes new members.

All IGC delegates who wish to attend any of the YES sessions or events during the week. The events are open to all interested parties, regardless of age.

Convenors

Joanne Venus, University of Leeds, Leeds (UK);

Michelle Cooper, Geoscience Australia, Canberra (AUS);

Gabriela Perlingeiro, University of Queensland, Brisbane (AUS);

YES Network International Executive

Program Committee

Joanne Venus, University of Leeds, Leeds (UK);

Michelle Cooper, Geoscience Australia, Canberra (AUS);

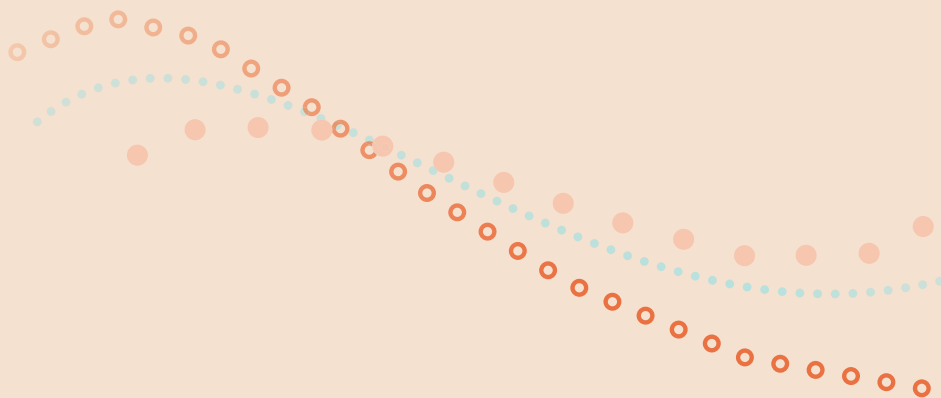
Gabriela Perlingeiro, University of Queensland, Brisbane (AUS);

Sarah Gaines, UNESCO, Paris (FRA);

Tiffany Rivera, Roskilde University, Roskilde (DEN).

Official Sponsor

- BHP Billiton



Indicative Program YES 2012 Congress

Sunday 5 August (University of Queensland)

09:00-10:00 **YES Network Congress Registration**

A YES 2012 registration desk will be set up at the University of Queensland for delegates registering only for YES Network events.

To participate in YES sessions to be held at the Brisbane Convention and Exhibition Centre, you must register as a 34th IGC delegate and pay the appropriate registration fee. Discounted registration fees are available to YES members and student delegates.

10:00-12:00 **CV Workshop**

At this workshop YES delegates will learn tips and tools for strengthening their CV. **Murray Smith, Vice President of Human Resources in Minerals Exploration at BHP** will share his insights into what industry looks for in the content and structure of a CV, while **Tiffany Rivera from Roskilde University, Denmark**, will address how academics (and those interested in pursuing a career in academia) should organise and present their CV.

Registration for this workshop will be via the YES Network website between October and March, 2012 (Limited onsite registration).

12:00-13:00 **Lunch Function**

YES Delegates are invited to a lunch function as a start to the Industry-YES Network Members Event. Come along and meet your fellow YES Network members right before the IGC begins.

The cost of this lunch is included in your registration if you are a YES member and have pre-registered for this event. Additional guests are \$30 AUD each; registration and payment details please contact Ashley Paroz at a.paro@uq.edu.au between October and March, 2012.

12:00-15:00 **Industry-YES Members Event**

This event will bring industry representatives, academics, researchers and professional organisations together with YES Network members to discuss opportunities for employment, work experience and collaboration in an informal and relaxed environment.

PLEASE NOTE: If you are interested in taking advantage of this exciting opportunity to interact with some of the brightest early career earth scientists from around the world by having a display and/or sending a representative of your organisation please contact Gabriela Perlingeiro at g.perlingeiro@uq.edu.au

Monday 6 August (Brisbane Convention Centre)

18:00-20:00 **YES National Chapters, YES Room 1**

This session will include presentations from the YES Network National Chapters on exciting projects and their plans for 2012-2014, and the YES awards ceremony.

20:00-22:00 **YES Network Meet and Greet Dinner**

A chance to see downtown Brisbane, join us for dinner in the city centre. Further details to be confirmed. (Cost not included in your registration)

Tuesday 7 August (Brisbane Convention Centre)

The YES Network Roundtable Program will commence on Tuesday 7 August. Roundtable sessions aim to bring together experts and early career geoscientists to discuss pertinent and topical issues. Two roundtable sessions will run concurrently each evening.

Roundtable sessions will run from 18:30 to 20:30 in the main conference centre, except for Friday 10 August when they will run from 09:00 to 11:30. Light refreshments will be provided and delegates are welcome to join their roundtable session organisers for dinner after each session (not funded) to continue the discussions.

18:30-20:30 Roundtable 1, YES Room 1:

How can Geoscientists best engage with the public and high school pupils

Convenors: YES Outreach Team, Ashvin Wickramasooriya

18:30-20:30 Roundtable 2, YES Room 2:

Geological knowledge and technology transfer in developing nations

Convenor: Regional Representatives from Africa and Middle East

Wednesday 8 August (Brisbane Convention Centre)

17:00-19:00 Roundtable 3, YES Room 1:

Engaging with policy makers: A YES legacy

Convenors: Gabriela Perlingeiro, YES Australia, David Govoni, YES Italy

17:00-19:00 Roundtable 4, YES Room 2

Education and Outreach in Polar Science

Convenors: Punyasloke Bhadury and Aisling Dolan, (joint YES Network and -Association of Polar Early Career Scientists)

Thursday 9 August (Brisbane Convention Centre)

18:30-20:30 Roundtable 5, YES Room 1

Emerging geoscience themes and the role of the YES network

Convenors: Visioning Team, Sarah Gaines, UNESCO

18:30-20:30 Roundtable 6, YES Room 2:

Women in Geosciences

Convenor: Tiffany Rivera, YES Denmark





Friday 10 August (Brisbane Convention Centre)

8:30-10:15 Roundtable 7, YES Room 1:

Professional Development: International skill recognition

Convenors: Professional Development team and Working Group Advisory Team

10:45-12:30 Science Communication Workshop, YES Room 1

Convenors: Cecilia Mukosi, YES South Africa

14:00-15:45 YES Network Poster Session

Posters invited from National Chapters and YES Network members based around the themes of the Roundtable Program and National Chapter activities.

YES within the IGC

All YES members are strongly encouraged to submit abstracts to the IGC programme. All YES member presentations will be listed on the YES Network website.

Details of the YES Network Symposium

IGC Theme 36. Regional, Thematic and Specialist Symposia

36.7 Overcoming geoscience challenges in the 21st century by developing and improving the skills of early-career geoscientists [YES Network]

Convenors: Joanne VENUS eejhv@leeds.ac.uk (UK), Gabriela PERLINGEIRO (Australia) and Michelle COOPER (Australia)

The Earth is facing significant challenges, many of which will need to be addressed by the next generation of Earth scientists. In order to meet these challenges it is imperative that the Earth scientists of the future form strong, international networks and develop relevant, cross-disciplinary skills. Effective outreach, including mentor schemes and internships, is more important than ever and required in order to support, recruit and retain the geoscientists required in the future. Faced by so many choices, early-career Earth scientists' key decision points need to be identified and discussed. Also crucial to the development of our future Earth scientists will be the recognition of international qualifications.

GeoHost Support Program

This scheme will provide financial support to a limited number of Young Earth Scientists and scientists or officials from mining and related government organisations who live and work or study in low income and other countries to participate in the 34th IGC.

Two programs are available under the GeoHost Support Scheme:

1. GeoHost Training Workshop Program (TWP)

2. GeoHost Funded Delegate Program (FDP)

Applications are now open for both GeoHost programs. Applications can only be made using the on-line application system (see below for details).

The GeoHost Support Scheme is the 34th IGC's sole scheme for providing financial support to congress delegates. No additional schemes or funds will be available to provide financial support to congress delegates. For further information and to apply, please go to **www.34igc.org**.

34th IGC Contact Information

The latest Congress information is always available at **www.34igc.org**

Please visit the site and join the mailing list to ensure you receive notice of updates to the site.

The 34th IGC office is available to assist you with all Congress enquiries:

General enquiries	info@34igc.org
Registration enquiries	register@34igc.org
Accommodation enquiries	accommodation@34igc.org
Scientific program enquiries	program@34igc.org
Abstract enquiries	abstract@34igc.org
Sponsorship enquiries	sponsor@34igc.org
GeoExpo (Exhibition) enquiries	exhibit@34igc.org
Telephone	+ (61) 7 3368 2644
Facsimile	+ (61) 7 3369 3731
Postal address	34th IGC PO Box 177 RED HILL QLD 4059 AUSTRALIA
Address for courier deliveries	34th IGC Carillon Conference Management Pty Limited Office 14, First Floor The Red Hill Centre 152 Musgrave Road RED HILL QLD 4059 AUSTRALIA

Travelling To Australia

Visas to Enter Australia

International delegates please note - You will need a visa to enter Australia and it must be obtained before you travel. We recommend that you apply not less than six (6) weeks prior to your departure date.

Delegates from all countries will need to apply for and obtain a visa to enter Australia. The only exceptions are citizens of Australia and New Zealand travelling on passports issued by these countries. Delegates from some countries will need an official letter of invitation and/or confirmation of congress registration to be provided with their visa application. These letters can only be provided after clearance of registration fee payment. The visa application process differs depending on your country of residence and the location of the nearest Australian embassy, consulate or high commission. For citizens of some countries, applying for an Australian visa is a simple and quick on-line process. In other cases, application forms and an interview may be involved. Please visit the Australian Government's Department of Immigration website at the address shown below – there you will find detailed information on the visa application process applicable to you.

www.immi.gov.au/visitors/event-organisers-participants/iecn.htm

Preferred Travel Provider

The 34th IGC is pleased to announce Corporate Group Traveller is the preferred travel provider for the congress.

Whether you are travelling from an international port or from within Australia, you will receive the best flights and the helpful services of the experienced travel consultants at Corporate Traveller Group Travel.

All travel booked with Corporate Traveller will have the back up of 24 hour a day, seven days a week support provided by an after hours team in the event of a problem or emergency.

For further information and to book:

- For all travel within Australia please go to: **www.galileoonline.travel/IGC**
- For international travel please contact Debra Grandidier:
debra.grandidier@corporatetraveller.com.au







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