



## Suggested media topics and talent Australian Earth Sciences Convention 20-24 July 2008, Perth

### Expanded list for:

- energy/resources writers
- science writers
- environment writers
- general media
- local media / local radio

### Note to media

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- Please find below a **selection only** of suggested media topics and talent for the Australian Earth Sciences Convention.
- Please note that some of the listed speakers or topics may change due to unforeseen circumstances – check for updates with Patrick Daley (the Convention’s Media Manager).
- Media should note that, due to the large number of speakers participating in this Convention, most of the speakers listed have not been contacted to determine their suitability as talent – rather, this list is based on topics of interest. Media themselves should assess speaker suitability as talent. Patrick Daley can provide contact details and abstracts (see next sub-heading).
- The following speakers and topics are arranged under **subject** headings and also under **state** headings – media are advised to review the topics listed under **all** headings in determining appropriate talent.
- The state in which each speaker is based has also been listed in **blue** after many speakers’ names, so local media can find appropriate local talent. (In some cases, the state in which the content of their paper is based has also been included in **blue**).
- **An edited version of this list** is also available from the conference website at [www.iceaustralia.com/aesc2008](http://www.iceaustralia.com/aesc2008) (go to Media) or from Patrick Daley, to assist general media and local media/radio to more easily pinpoint appropriate talent and topics.

## Media contact

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Media are welcome to contact Patrick Daley, the Convention Media Manager, on tel: 0408 004 890 for further information on the Convention and its program. Patrick Daley will be available on-site during the entire Convention.

## Full Convention program and stream programs

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Go to [www.iceaustralia.com/aesc2008](http://www.iceaustralia.com/aesc2008) to view the full Convention program and see links below to the individual programs for each of the Convention's five major streams:

- Geoscience in the service of society  
[www.iceaustralia.com/aesc2008/pdf/Program\\_Geoscience.pdf](http://www.iceaustralia.com/aesc2008/pdf/Program_Geoscience.pdf)
- Resources – foundation for our future  
[www.iceaustralia.com/aesc2008/pdf/Program\\_Resources.pdf](http://www.iceaustralia.com/aesc2008/pdf/Program_Resources.pdf)
- The evolution of life and the solar system  
[www.iceaustralia.com/aesc2008/pdf/Program\\_Evolution.pdf](http://www.iceaustralia.com/aesc2008/pdf/Program_Evolution.pdf)
- Earth's environments – past, present and future  
[www.iceaustralia.com/aesc2008/pdf/Program\\_Earths\\_Environment.pdf](http://www.iceaustralia.com/aesc2008/pdf/Program_Earths_Environment.pdf)
- The dynamic Earth – from crust to core  
[www.iceaustralia.com/aesc2008/pdf/Program\\_Dynamic\\_Earth.pdf](http://www.iceaustralia.com/aesc2008/pdf/Program_Dynamic_Earth.pdf)

## General Convention media talent

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- the Convention's Program Director, Dr Jon Hronsky, is available to undertake interviews on the Convention in general, the importance of the Convention, the range of topics being discussed during the Convention, and the Convention's resources stream.
- the incoming President of the Geological Society of Australia, Professor Peter Cawood, is also able to undertake general interviews about the Convention, the importance of the Convention, the range of topics being discussed during the Convention, and general geoscience topics.
- the Convenor of the Convention's *Resources – foundation for our future* stream, Marcus Harris, is able to undertake interviews on topics being highlighted in this stream.
- the Convenor of the Convention's *Evolution of life and the Solar System* stream, Dr Marc Norman, is able to undertake interviews on topics being highlighted in this stream.

## Plenary speakers

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- **9.30am Monday**  
**Mawson Lecture 2008**  
**Making mountains: geological drivers and environmental consequences**  
Professor Peter Cawood, School of Earth and Geographical Sciences,  
University of Western Australia; Mawson Prize recipient for 2008; incoming President of the  
Geological Society of Australia ([WA](#))
  
- **9am Tuesday**  
**Australia's energy future**  
Dr Peter McCabe, CSIRO Petroleum Resources Division ([NSW](#))
  
- **9.45am Tuesday**  
**The geological history of climate change**  
Professor Malcolm Walter, Australian Centre for Astrobiology, University of NSW ([NSW](#))
  
- **9am Wednesday**  
**The Yarragadee Aquifer**  
Phil Commander, WA Geological Survey and Department of Water ([WA](#))
  
- **9:45am Wednesday**  
**The Tsunami risk to Australia and what is being done to mitigate it**  
Dr Barry Drummond, Geoscience Australia ([ACT](#))
  
- **9am Thursday**  
**The dynamic Earth – the new perspective from deep seismic imaging**  
Professor Michael Gurnis, California Institute of Technology ([USA](#))
  
- **9.45am Thursday**  
**New views of the chemistry and geology of the crust of Mars**  
Dr Jeffrey Taylor, Hawaii Institute of Geophysics and Planetology ([USA](#))

## **Mining and exploration – business approaches, investment and psychology**

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*[Refer also to state sections for additional state-specific papers on these topics]*

### ■ **12.05 Monday**

**Australian Junior Exploration Floats, 2001–2006, and their implications for IPOs**

A/Prof. Pietro Guj, The University of Western Australia (WA)

### ■ **4.05 Monday**

**Transfer of research initiatives into practice – how effectively are new concepts driving exploration outcomes?**

Dr. Peter Williams, SRK Consulting (WA)

### ■ **11.05 Tuesday - keynote**

**The psychology of decision-making in mineral exploration – a key to improving return on investment in our business**

Prof. Mike Etheridge, GEMOC Key Centre, Department of Environmental and Life Sciences, Macquarie University (NSW)

### ■ **11.45 Tuesday**

**Technology and integration: improving exploration success - the Australian Mineral Fields Philosophy**

Marcus Willson, Australian Mineral Fields Ltd (WA)

### ■ **12.05 Tuesday**

**Integra Mining's exploration strategy and discoveries – does one size fit all?**

Chris Cairns, Integra Mining Ltd (WA)

### ■ **12.05 Tuesday**

**From takeover to take off: issues in managing data transfers and migration in the current frenetic M&A environment**

Elizabeth Amann & Sue Grennan, BHP Billiton Nickel West and Margaret Ellis, Geological Survey of Western Australia (WA)

### ■ **2.20 Wednesday - keynote**

**Fortescue Metals Group Ltd - creating shareholder value from exploration**

Stuart Robinson, Fortescue Metals Group Ltd (WA)

### ■ **3.20 Wednesday**

**South Jimblebar, Newman - an integrated team approach to an iron ore discovery**

Mr. Steve Wilson, BHP Billiton Iron Ore (WA)

### ■ **2.20 Thursday**

**A collaborative approach to developing a nickel exploration model in the Lake Johnston Greenstone Belt, WA**

Ian Gregory, Norilsk Nickel Australia (WA)

## **Mining and exploration – new frontiers, research, precompetitive geoscience and geology**

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*[Refer also to state sections for additional state-specific papers on these topics]*

- **11.05 Monday**  
**Mineral exploration-related research in the Minerals Down Under National Research Flagship**  
Paul Roberts, CSIRO Exploration and Mining ([WA](#))
- **11.45 Monday**  
**Looking for mine water supply in the area of limited water allocation (Boggabri Coal, NSW)**  
Katarina David, Parsons Brinckerhoff ([NSW](#))
- **12.05 Monday – keynote**  
**Securing Australia’s future wealth – the role of precompetitive geoscience and Geoscience Australia’s program.**  
James Johnson, Geoscience Australia ([ACT](#))
- **12.25 Monday**  
**What are in-situ gold resources worth? An empirical study**  
Mr. Jonathan Bell, Curtin University of Technology (WA School of Mines) ([WA](#))
- **4.20 Monday**  
**Geology and Resources of New Guinea**  
Hugh Davies, Mineral Resources Authority ([PNG](#))
- **4.45 Monday**  
**Mineral exploration in New Zealand: new research framework and tools**  
Nick Mortimer, GNS Science ([NZ](#))
- **12.05 Tuesday - keynote**  
**Quantitative resource assessment – a precursor to prospectivity analysis**  
Don Singer, US Geological Survey ([USA](#))
- **12.25 Tuesday**  
**A potential new MVT province in Laos**  
Ian Mulholland, Rox Resources Limited ([WA](#))
- **1.50 Tuesday - keynote**  
**Exploration science**  
Dr. Andy Barnicoat, Predictive Mineral Discovery Co-operative Research Centre (Pmd\*CRC) ([ACT](#))
- **2.50 Tuesday**  
**A perfect sulphide storm at Mt Isa**  
Dr. Geoff Derrick, G M Derrick Geology ([Queensland](#))

- **4.05 Tuesday - keynote**  
**The geodynamic setting and magmatic controls on genesis of world class IOCG ore deposits**  
 Dr. Nicholas Haywood, BHP Billiton ([WA](#))
- **4.25 Tuesday**  
**Early to Middle Triassic stratigraphy of the offshore eastern Bonaparte Basin and Londonderry High, northern Australia**  
 John D. Gorter, Eni Australia Limited ([speaker: WA](#)) ([subject: NT](#))
- **5.05 Tuesday - keynote**  
**Investigating petroleum systems using micron-scale tracers within sedimentary grains**  
 Dr. Peter Eadington, CSIRO Division of Petroleum Resources ([WA](#))
- **3pm Wednesday**  
**Geomorphology, crocodiles and mineralisation in Morobe Province, PNG**  
 Dr. Robert Findlay, Montagu Minerals Mapping Pty Ltd ([speaker: Tasmania](#)) ([subject: PNG](#))
- **4.20 Wednesday**  
**Canning Basin oil and gas potential**  
 Neil Thompson, ARC Energy Limited ([WA](#))
- **11.35 Thursday - keynote**  
**Advances in magmatic Ni-Cu-PGE exploration geoscience: challenging dogma and developing new ideas for an evolving search space**  
 Dr. Steve Beresford, University of Western Australia ([WA](#))
- **12.15 Thursday**  
**What does the regional setting of the Voisey's Bay nickel deposit tell us about where to find similar deposits?**  
 Prof. John Myers, Curtin University of Technology ([WA](#))
- **12.35 Thursday - keynote**  
**The gold mineral system: do we know what we don't know?**  
 Prof. Campbell McCuaig, Centre for Exploration Targeting, University of WA ([WA](#))

## **Geohazards – tsunamis, earthquakes, volcanoes**

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*[Refer also to state sections for additional state-specific papers on these topics]*

- **11.35 Wednesday - keynote**  
**Rupture characteristics of recent tsunamigenic earthquakes in Australasia, estimated from seismic and sea level data**  
Dr. Phil Cummins, Geoscience Australia ([ACT](#))
- **12.35 Wednesday**  
**Earthquake magnitude in the context of rupture harvesting efficiency in different geodynamic environments**  
Prof. Gordon Lister, Australian National University ([ACT](#))
- **2.20 Wednesday**  
**Volcano and earthquake risk in the Asia-Pacific Region**  
Jonathon Griffin, Geoscience Australia ([ACT](#))
- **2.20 Wednesday**  
**The role of geoscience in developing the Indian Ocean Tsunami Warning System**  
Dr. Jane Cunneen, Intergovernmental Oceanographic Commission of UNESCO ([WA](#))
- **3.40 Wednesday**  
**Three dimensional modeling of natural hazards using Geographic Information Systems**  
Dr. D. John Prabaharan, WA Department for Planning and Infrastructure ([WA](#))
- **4.35 Wednesday**  
**Understanding natural hazards using field geology and geochronology**  
Dr. Mark Quigley, The University of Melbourne ([Victoria](#))
- **11.55 Thursday**  
**The ‘Lusi’ Mud Eruption, Sidoarjo, East Java – a unique geological disaster**  
Dr. Mark Tingay, University of Adelaide ([SA](#))
- **12.55 Thursday**  
**E.F. Pigot S.J.: the priest who knew about earthquakes**  
Dr. David Branagan, University of Sydney ([NSW](#))

## **Water exploration and contamination, salinity, food security**

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- **12.05 Monday**  
**Construction dewatering impacts on groundwater resources; regulation and management**  
Gregory Russell, NSW Department of Water and Energy ([NSW](#))
- **1.50 Monday - keynote**  
**Petroleum hydrogeology application to groundwater management**  
James Underschultz, CSIRO ([WA](#))
- **1.50 Monday - keynote**  
**The Top Down paradigm – do plants control groundwater and weathering in semi-arid Australia?**  
Dr. David Gray, CSIRO Exploration and Mining ([WA](#))
- **1.50 Tuesday**  
**Joining forces for (geoscience) knowledge – groundwater and mineral exploration, same approach, different targets**  
Dr. Jon Fawcett, Department of Primary Industries, Victoria ([Victoria](#))
- **2.10 Tuesday**  
**Application of mineral exploration mapping tools and concepts to groundwater resource evaluation**  
Mr. Bruce Gill, Department of Primary Industries, Victoria ([Victoria](#))
- **2.20 Wednesday - keynote**  
**Recent advances in the application of hydrogeophysics and regolith geoscience for groundwater and salinity mapping and management**  
Dr. Ken Lawrie, Geoscience Australia ([ACT](#))
- **3.40 Wednesday**  
**Customised products derived using airborne EM and hydrogeological data to assist in land use management along the Murray River in New South Wales and Victoria, Australia**  
Dr. Kok Piang Tan, Geoscience Australia ([speaker: ACT](#)) ([subject: NSW, Victoria, SA](#))
- **4.55 Wednesday**  
**Integrating remote-sensing with airborne electromagnetics for vegetation and crop health along the River Murray Corridor**  
Dr. Vanessa Wong, Geoscience Australia ([speaker: ACT](#)) ([subject: NSW, Victoria, SA](#))
- **5.55 Wednesday**  
**A hydrogeological-landscape framework providing new insights into salinity processes and management approaches.**  
John Wilford, Geoscience Australia ([ACT](#))
- **11.35 Thursday**  
**Acidic groundwater in the south-west of Western Australia: its distribution and causes**  
Adam Lillicrap, Department of Agriculture and Food Western Australia ([WA](#))



- **11.55 Thursday**  
**Assessment of geochemical risks of saline acidic ground-waters in the WA wheatbelt**  
 Dr. Brad Degens, WA Department of Water ([WA](#))
  
- **12.15 Thursday**  
**Lake Muir–Unicup Natural Diversity Recovery Catchment — groundwater chloride/bromide ratios**  
 Margaret Smith, Curtin University of Technology ([WA](#))
  
- **12.35 Thursday**  
**Treatment of saline acid drainage in the Western Australian wheatbelt: field evaluations**  
 Dr. Brad Degens, WA Department of Water ([WA](#))
  
- **12.55 Thursday**  
**Tectonic/volcanic control on salinisation of Bet Bet Creek, central Victoria**  
 Dr. John Webb, LaTrobe University ([Victoria](#))
  
- **2.20 Thursday**  
**Dryland salinity and woodland biota in a ‘warming’ south eastern Australia: endemic flora and fauna to the rescue!**  
 Glen Bann, Australian National University ([speaker: ACT](#)) ([subject: south eastern Australia](#))
  
- **2.40 Thursday**  
**Infrastructure planning and contamination management**  
 Malcolm Dale, Parsons Brinckerhoff ([NSW](#))
  
- **3.00 Thursday**  
**Some natural and anthropogenic sources of groundwater contamination in the Himalayan mountain belt**  
 Dr. M. Asim Yousafzai, University of Peshawar ([Pakistan](#))
  
- **3.20 Thursday**  
**Geoscience and food traceability**  
 Anita Andrew, Environmental Isotopes Pty Ltd ([NSW](#))

## **Future energy sources, geothermal energy, carbon sequestration, coal seams, clean coal technology**

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- **11.05 Monday - keynote**  
**Ancient analogues for CO<sub>2</sub> sequestration in coal measures, Gunnedah and Bowen Basins, Australia**  
Dr. Sue Golding, University of Queensland ([speaker: Queensland](#)) ([subject: Queensland, NSW](#))
- **11.05 Tuesday**  
**Geoscience Australia, Offshore Energy Security Program: an update of planned marine surveys and initial results**  
Dr. Peter Southgate, Geoscience Australia ([ACT](#))
- **1.50 Tuesday**  
**Collie Coal and the Clean Coal Technology**  
Prof. Krishna Sappal, Curtin University of Technology ([WA](#))
- **2.10 Tuesday**  
**Low-enthalpy geothermal systems driven by convection in fault zones**  
Dr. Klaus Gessner, The University of Western Australia ([WA](#))
- **2.30 Tuesday**  
**Challenges in fault modelling of coal seams**  
Mark Biggs, Anglo Coal (Dawson Management) Pty Ltd ([Queensland](#))
- **2.50 Tuesday**  
**Geoscience Australia's Onshore Energy Security Program - the Geothermal Energy Project**  
Dr. Ian Lambert, Geoscience Australia ([ACT](#))
- **3.10 Tuesday**  
**Geothermal Systems Analysis – a risk-based approach to exploring for geothermal resources**  
Graham Beardsmore, Hot Dry Rocks Pty Ltd ([Victoria](#))
- **11:35 Wednesday - keynote**  
**Australia's uranium deposits, resources and production in a global context**  
Dr. Ian Lambert, Geoscience Australia ([ACT](#))
- **4.35 Wednesday - keynote**  
**An integrated approach to geological screening for sequestration potential – an example from the Darling Basin, New South Wales**  
Jane Blevin, FrOG Tech Pty Ltd ([speaker: ACT](#)) ([subject: NSW](#))
- **5.35 Wednesday**  
**An organogenic model for carbon sequestration**  
Dr. David Wright, University of Leicester ([UK](#))
- **5.55 Wednesday**  
**Carbon dioxide storage sites: from prospects to pilots**  
Tess Dance, CO<sub>2</sub>CRC CSIRO Petroleum ([WA](#))

## Climate change and sea-level change

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- **11.05 Monday - keynote**  
**Coal seams – multi-scale resolution records of climate change**  
Joan Esterle, CSIRO Exploration and Mining ([Queensland](#))
- **11.45 Monday**  
**Foraminiferal tracers for climate and water-quality changes in Permian interior seas in north-eastern Gondwana**  
Dr. David Haig, The University of Western Australia ([WA](#))
- **12.05 Monday**  
**Age and stratigraphic constraints on the evolution of mega-lake Bungunnia: insights into Plio-Pleistocene climate change in southern Australia**  
Dr. Sandra McLaren, University of Melbourne ([Victoria](#))
- **1.50 Monday - keynote**  
**Milestones in the evolution of the atmosphere with reference to climate change**  
Dr. Andrew Glikson, Australian National University ([ACT](#))
- **2.50 Monday**  
**Two new IODP paleoceanographic drilling opportunities in the Timor Sea: Late Quaternary Paleooceanography and tracking sea level change from the Late Miocene**  
Bradley Opdyke, Australian National University ([speaker: ACT](#)) ([subject: WA, NT](#))
- **2.30 Tuesday**  
**Long-term sea level fluctuations and paleogeography driven by ocean basin dynamics**  
Dr. Dietmar Muller, The University of Sydney ([NSW](#))
- **4.05 Tuesday**  
**Cenozoic carbonate response to climatic change due to a tectonic-induced latitudinal shift**  
Dr. Moyra Wilson, Curtin University ([WA](#))
- **5.35 Wednesday**  
**Predicting hydrological threshold events in response to climate**  
Dr. Christoph Hinz, University of Western Australia ([WA](#))

## Other topics

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- **11.05 Monday - keynote**  
**Australia and the Integrated Ocean Drilling Program (IODP)**  
Prof. Richard Arculus, Australian National University ([ACT](#))
  
- **12.05 Monday**  
**Studying surface attributes to reveal hidden regolith profiles: geochemistry and mineralogy of termite mounds of the Coyote Au-deposit and surrounds, WA**  
Anna Petts, CRC-LEME/University of Adelaide ([speaker: SA](#)) ([subject: WA](#))
  
- **1.50 Monday**  
**Drowned reefs in the Great Barrier Reef and Hawaii: a new era in IODP coral reef drilling**  
Dr. Jody Webster, James Cook University ([Queensland](#))
  
- **11.05 Tuesday - keynote**  
**Auscope: Australian Earth Science Research Information Infrastructure**  
Dr. Robert Woodcock, CSIRO Exploration and Mining ([WA](#))
  
- **11.45 Tuesday**  
**Provenance of ophiolitic sand: comparison of ancient and modern sand**  
Melissa Murphy, Macquarie University ([NSW](#))
  
- **12.05 Tuesday**  
**In situ U-Pb, O, and Hf isotope measurements of I- and S-type granites from the Berridale and Kosciuszko Batholiths**  
Dr. Ryan Ickert, Australian National University ([speaker: ACT](#)) ([subject: NSW](#))

## Geotourism

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- **11.35 Thursday - keynote**  
**Taking geology to the public: geotourism and geoparks**  
Prof. Ross Dowling, Edith Cowan University School of Marketing ([WA](#))
- **12.35 Thursday**  
**Rock tourism and the Black-footed Rock Wallaby**  
Alan Briggs, The National Trust of Australia ([WA](#))
- **2.20 Thursday**  
**The difference between a rock and a hard place: using geology to add value to the nature-based tourism experience**  
A/Prof. Ian Clark, University of South Australia ([SA](#))
- **2.40 Thursday**  
**Geotourism and geoparks promote education for sustainable development**  
Patrick James, University of South Australia ([SA](#))
- **3.00 Thursday**  
**William Blandowski's 1850s explorations of the geology and landscape of south-eastern Australia**  
Dr Doug McCann, Deakin University ([Victoria](#))

## Geoscience education

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- **11.45 Monday**  
**The University of the Sea and the benefits to learning of active participation in a research cruise**  
Kelsie Dadd, Macquarie University ([NSW](#))
- **11.35 Thursday – keynote**  
**Fighting the plight: earth science on the march in Western Australia**  
Dr. James Ross, Earth Science Western Australia ([WA](#))
- **12.15 Thursday**  
**Tertiary geoscience education in Australia: what future?**  
Dr. Trevor Powell, Australian Geoscience Council ([ACT](#))
- **12.35 Thursday**  
**Gauging reasons for enrolment in an entry level university geology course: results of student surveys from 2002-2007**  
Dr. Karen Barovich, University of Adelaide ([SA](#))
- **2.20 Thursday**  
**Fact-ites, Quizzicles and EarthCaching: the Geological Society of Australia education and outreach initiatives. Where to from here?**  
Greg McNamara, Geological Society of Australia ([NSW](#))
- **3.00 Thursday**  
**The Teacher Earth Science Education Programme [TESEP] and Geoscience Pathways: a national scheme to assist teachers and help students discover Earth Science and associated career paths**  
Greg McNamara, Geological Society of Australia & Len Altman, Marden Senior College ([NSW](#))
- **3.20 Thursday**  
**Living Geodiversity – simplified geology maps and linked eco-geo field trips for school and community education**  
Glen Bann, Australian National University ([ACT](#))

## Evolution of life and the Solar System

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*[Refer also to state sections for additional state-specific papers on these topics]*

- **11.05 Monday - keynote**  
**The quest for perfection – biogenicity and the Early Fossil Record**  
Prof. Stanley Awramik, University of California (USA)
- **12.05 Monday**  
**Microbially induced sedimentary structures – signs of life in Archean to modern sandy marine settings**  
Dr. Nora Noffke, Old Dominion University (USA)
- **12.25 Monday**  
**Highly elaborate putative microfossils from >2.97 Ga chert, Pilbara Craton: indications of cell division?**  
Dr. Kenichiro Sugitani, Nagoya University (Japan)
- **1.50 Monday**  
**The ~3.43Ga Strelley Pool sandstone as an environment for early life**  
Cris Stoakes, C.A. Stoakes Associates Consultant Geologists (WA)
- **2.30 Monday**  
**Genesis of 3.43 billion year old stromatolites: elemental mapping and microfacies analysis of recrystallized platform margin accretionary structures**  
Dr. Abigail Allwood, Jet Propulsion Laboratory (USA)
- **2.50 Monday**  
**Morphological complexity and diversity in the c.3.40 Ga Strelley Pool Chert, Pilbara Craton — evidence for a biogenic origin**  
Dr. Kathleen Grey, Geological Survey of Western Australia (WA)
- **3.10 Monday**  
**Environments of life at 3.5–3.3 Ga; evidence from the East Pilbara Terrane, WA**  
Dr. Martin Van Kranendonk, Geological Survey of Western Australia (WA)
- **4.05 Monday**  
**A reassessment of the evidence for sulphur-based microbial metabolic activity in the early Archean at North Pole, Western Australia**  
Prof. Bruce Runnegar, University of California (subject: WA)
- **4.45 Monday**  
**Unravelling biogenicity of Archaean organic matter in the Pilbara Craton, Western Australia**  
Craig Marshall, The University of Sydney (NSW)
- **11.05 Tuesday**  
**An overview of four international geoscientific drilling projects, Pilbara Craton, Western Australia, 2003 -2007**  
Dr. Arthur Hickman, Geological Survey of Western Australia (WA)

- **11.25 Tuesday - keynote**  
**Geochemical evidence for the development of a fully-oxygenated atmosphere-oceans and modern-style ecosystems by ~3.5 Ga**  
 Prof. Hiroshi Ohmoto, The Pennsylvania State University ([USA](#))
- **1.50 Tuesday**  
**Geochemical evidence for oxygenated oceans 3.46 Ga ago: REE geochemistry of the Marble Bar Chert recovered by the Archean Biosphere Drilling Project (ABDP)**  
 Dr. Kosei Yamaguchi, Precambrian Ecosystem Lab., XBR, JAMSTEC ([subject: WA](#))
- **2.10 Tuesday**  
**Shallower Submarine Ecosystem at 2.7-2.8 Ga, Pilbara, Western Australia**  
 Dr. Munetomo Nedachi, Kagoshima University ([subject: WA](#))
- **2.30 Tuesday**  
**A volcanic caldera habitat for Earth's oldest stromatolites (c. 3.5 Ga) from the North Pole Dome, Western Australia**  
 Dr. Martin Van Kranendonk, Geological Survey of Western Australia ([WA](#))
- **4.05 Tuesday - keynote**  
**The Pilbara Drilling Project: results and perspectives**  
 Pascal Philippot, Institut De Physique Du Globe De Paris ([subject: WA](#))
- **5.25 Tuesday**  
**Modern Deep Biosphere in 2,724 Myr-old stromatolites of the Tumbiana Formation, Pilbara Craton, Australia**  
 Emmanuelle Gérard, Institut De Physique Du Globe De Paris ([subject: WA](#))
- **11.35 Wednesday - keynote**  
**The formation and early evolution of the solar system**  
 Dr. Raquel Salmeron, Mt Stromlo Observatory ([ACT](#))
- **12.15 Wednesday**  
**Formation of the Inner Solar System: new insights revealed by spacecraft data**  
 Andrew Prentice, Monash University ([Victoria](#))
- **2.20 Wednesday**  
**Chronology of the Early Solar System through short-lived and long-lived chronometers**  
 Dr. Trevor Ireland, Australian National University ([ACT](#))
- **12.35 Wednesday**  
**Dust to Planets - what have we learned from Genesis and Stardust samples?**  
 Judith Allton, NASA Johnson Space Center ([USA](#))
- **2.40 Wednesday**  
**Extremes of igneous fractionation in the Moon**  
 Dr Jeffrey Taylor, Hawaii Institute of Geophysics and Planetology ([USA](#))
- **12.45 Wednesday**  
**Dating fractionation of refractory and volatile elements in the Protoplanetary Disk**  
 Dr. Yuri Amelin, The Australian National University ([ACT](#))



- **2.40 Wednesday**  
**Restoration of marine ecosystems following the Permian-Triassic mass extinction in Gondwanan interior sea**  
 Dr. Zhong Qiang Chen, University of Western Australia (WA)
- **3.00 Wednesday**  
**Molecular and isotopic evidence for a microbial response to the Triassic–Jurassic mass extinction**  
 Dr. Kenneth Williford, Curtin University of Technology (WA)
- **3.00 Wednesday**  
**Early evolution of Earth and Moon**  
 Dr. Alexander Nemchin, Curtin University of Technology (WA)
- **3.20 Wednesday**  
**Position of the end-Permian mass extinction level and Permian Triassic boundary in Australia**  
 Prof. Ian Metcalfe, University of New England (NSW)
- **3.40 Wednesday**  
**Global significance of stable carbon, sulfur and hydrogen isotope signals together with higher plant derived components of sedimentary organic material from the Permian/Triassic boundary**  
 Brigit Nabbefeld, Curtin University of Technology (WA)
- **4.35 Wednesday - keynote**  
**Mineral precipitation in porous media: laboratory diffusion experiments as analogues for concretion formation in Utah and on Mars**  
 Laura Barge, University of Southern California (USA)
- **5.15 Wednesday**  
**The Dalhousie Mound Spring Complex (South Australia) as a guide to Martian landforms and processes**  
 Dr. Jonathan Clarke, Mars Society Australia (subject: SA)
- **5.55 Wednesday**  
**Higher Order Neighbour Statistics of Martian North Polar Crescentic Dune Fields**  
 Andrew Wheeler, University of South Australia (SA)
- **11.35 Thursday - keynote**  
**The impact of impacts: impact as a geological process and its significance in economic geology**  
 Dr. Peter Haines, Geological Survey of Western Australia (WA)
- **12.15 Thursday**  
**The geophysical signatures of Australia’s meteorite impact structures**  
 Dr. Phil Hawke, University of Western Australia (WA)
- **12.35 Thursday**  
**A newly discovered meteorite impact crater, Ophthalmia Range, Western Australia**  
 Dr. Arthur Hickman, Geological Survey of Western Australia (WA)

- **12.55 Thursday**  
**Sedimentary and Petrologic Evidence of a Tookoonooka Impact Event Ejecta Layer, Australia**  
Katherine Bron, University of Adelaide ([SA](#))
  
- **2.40 Thursday**  
**Timing of the Lawn Hill Impact Crater and Relationship to the Century Zn-Pb Deposit, Northwest Queensland**  
Jess Salisbury, Monash University ([speaker: Victoria](#)) ([subject: Queensland](#))
  
- **3.00 Thursday**  
**Direct field evidence for Archaean and early Proterozoic Eros-scale asteroid impacts and major geodynamic consequences, Kaapvaal and Pilbara Cratons**  
Dr. Andrew Glikson, Australian National University ([speaker: ACT](#)) ([subject: WA](#))
  
- **3.20 Thursday**  
**Hydrothermal systems associated with meteorite impacts**  
Dr. Franco Piranjo, Geological Survey of Western Australia ([WA](#))
  
- **3.40 Thursday**  
**New perspective on the Lunar Cataclysm from crater density populations**  
Dr. Marc Norman, Australian National University ([ACT](#))

## Dynamic Earth and Earth's environments

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*[Refer also to state sections for additional state-specific papers on these topics]*

- **11.05 Monday**  
**The tilting continent and other geomorphic signals of mantle flow beneath Australia**  
Prof. Mike Sandiford, University of Melbourne ([Victoria](#))
- **12.25 Monday**  
**Visualising landscape evolution with SRTM data: regolith landform mapping in the Tanami**  
Dr. Richard Langford, Department of Industry and Resources ([speaker: WA](#)) ([subject: NT](#))
- **4.05 Monday**  
**Mass wasting along the East Australian Continental Slope**  
Kriton Glenn, Geoscience Australia ([speaker: ACT](#)) ([subject: eastern states](#))
- **4.45 Monday**  
**Capel and Faust basins – geoscientific assessment of an offshore frontier region**  
Riko Hashimoto, Geoscience Australia ([speaker: ACT](#)) ([subject: Queensland](#))
- **11.05 Tuesday**  
**Isotopic evidence for continental growth during accretionary orogenesis in the Tasmanides, eastern Australia**  
Dr. Tony Kemp, James Cook University ([Queensland](#))
- **2.50 Tuesday**  
**Characteristics of the Australian Crust from seismic reflection profiling**  
Dr. Bruce Goleby, Geoscience Australia ([ACT](#))
- **2.50 Tuesday**  
**Cenozoic biogeographic evidence for West Pacific Warm Pool formation and the initiation of the Kuroshio and Leeuwin Current**  
A/Prof. Stephen Gallagher, The University of Melbourne ([Victoria](#))
- **3.10 Tuesday**  
**WOMBAT: An evolving seismic array experiment in Australia**  
Dr. Nicholas Rawlinson, Australian National University ([ACT](#))
- **4.05 Tuesday**  
**From the strengthening, emergence and erosion of continents in the Neoproterozoic, to the coupling of Earth's geochemical reservoirs**  
Dr. Patrice Rey, The University of Sydney ([NSW](#))
- **11.35 Wednesday - keynote**  
**What drives major episodic reorganisations of the plate-mantle system?**  
Dr. Dietmar Muller, The University of Sydney ([NSW](#))
- **11.35 Wednesday - keynote**  
**Mantle melting**  
Dr. Nick Arndt, Université De Grenoble ([France](#))

- **12.15 Wednesday**  
**Three-dimensional morphology of magmatic sulphides sheds light on ore formation, mantle melting and segregation of the Earth's core**  
 Dr. Marco Fiorentini, Centre for Exploration Targeting, University of WA ([WA](#))
- **12.35 Wednesday**  
**Integrating deep Earth dynamics in paleogeographic reconstructions of Australia**  
 Dr. Christian Heine, EarthByte Group, School of Geosciences, University of Sydney ([NSW](#))
- **12.55 Wednesday**  
**On the dynamics of active continental margins**  
 Dr. Patrice Rey, The University of Sydney ([NSW](#))
- **12.55 Wednesday**  
**Early history of Planet Earth from combined  $^{142}\text{-}^{143}\text{Nd}$  and  $^{176}\text{Hf}$  isotopic signatures**  
 Dr. Vickie Bennett, Australian National University ([ACT](#))
- **2.40 Wednesday**  
**The Cambro-Ordovician, the Centralian Superbasin (Part 2) and trans-Gondwanan Seaways**  
 Robert S. Nicoll, Australian National University ([ACT](#))
- **3.40 Wednesday**  
**Evidence for a Mesoproterozoic hotspot track in eastern and central Australia**  
 Dr. Peter Betts, Monash University ([Victoria](#))
- **4.35 Wednesday**  
**Little time for a lot of LIP: relative timing of magmatism and deformation during the c. 1070 Ma Giles Event in the Musgrave Complex of Western Australia**  
 Dr. Paul Evins, Geological Survey of Western Australia ([WA](#))
- **5.15 Wednesday**  
**Discovery of a fossil slab in the lower mantle below the Tasman Sea using plate reconstructions and mantle tomography**  
 Dr. Wouter Schellart, Monash University ([Victoria](#))
- **5.35 Wednesday**  
**Reconciling neotectonic and seismic recurrence rates in SW Australia**  
 Dr. Mark Leonard, Geoscience Australia ([speaker: ACT](#)) ([subject: south-western states](#))
- **11.35 Thursday - keynote**  
**Formation of a Supercontinent, framework of the Super-Resource: the East African Orogen and the Amalgamation of Arabia**  
 Dr. Alan Collins, University of Adelaide ([SA](#))
- **2.20 Thursday**  
**An exploratory laboratory study of the role of water in seismic-wave attenuation**  
 Prof. Ian Jackson, Australian National University ([ACT](#))

- **3pm Thursday**

- **Supercontinents, supermountains and the rise of atmospheric oxygen**

- Prof. Ian Campbell, The Australian National University ([ACT](#))

- **3.20 Thursday**

- **Tectonics, plumes and supercontinents: the energy link**

- Dr. Graham Begg, Minerals Targeting International PL, GEMOC, Dept of Earth and Planetary Sciences, Macquarie University ([NSW](#))

## Queensland talent/topics

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*[refer to other topic headings for additional Queensland speakers and topics]*

- **11.20 Monday**  
**Queensland – program initiatives to attract exploration investment**  
Mal Jones, Geological Survey of Queensland
- **2.10 Monday**  
**Multiphase palaeochannel development on the Great Barrier Reef Shelf, Australia**  
Dr. Raphael Wust, James Cook University
- **2.30 Monday**  
**Next generation mineral mapping in Queensland: another piece to the precompetitive geoscience data puzzle**  
Tom Cudahy, CSIRO Exploration and Mining
- **11.45 Tuesday**  
**A three-dimensional Weights of Evidence Model for the Drummond basin in NE Queensland: quantitative assessment of controlling variables for epithermal Au**  
Dr. Leonardo Feltrin, James Cook University
- **12.05 Tuesday**  
**3D modelling and the implications for resource assessment**  
Dr. Margaretha Scott, Geological Survey of Queensland
- **12.25 Tuesday**  
**Get closer to the truth...with hyperspectral mineral maps from Queensland**  
Mal Jones, Geological Survey of Queensland
- **5.15 Wednesday**  
**New zircon U/Pb dating from the Mt Coolon mineral district, northern Drummond Basin, Queensland, and implications for regional exploration targetting**  
Dr. Robert Findlay, Montagu Minerals Mapping Pty Ltd
- **2.20 Thursday**  
**Geology and mineralization of the Rocklands Copper Deposits, Cloncurry District, North West Queensland**  
Simon Beams, Terra Search Pty Ltd

## NSW talent/topics

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*[refer to other topic headings for additional NSW speakers and topics]*

- **2.30 Monday**  
**New South Wales, new frontiers, new opportunities**  
John Greenfield, Geological Survey of NSW
  
- **4.25 Monday**  
**Discovery of a large Palaeochannel during exploratory groundwater investigations at Glen Innes, NSW**  
Graham Hawkes, Parsons Brinckerhoff
  
- **5.25 Monday**  
**Dryland salinity and geodiversity on the Southern Tablelands of NSW: the use of the EM (and AEM) technique for mapping and management?**  
Glen Bann, Australian National University
  
- **3.10 Tuesday**  
**Increasing the scope of mineral prospectivity in the Cobar-Bourke region, New South Wales**  
Stephen Trigg, Geological Survey of New South Wales
  
- **4.25 Tuesday**  
**Exploring for Porphyry Cu-Au-Mo in the Gilmore Fault Zone at Temora, NSW**  
Martin Scott, Goldminco
  
- **3.20 Wednesday**  
**Tsunami hazard in south-eastern Australia: preliminary findings from palaeotsunami investigations on the NSW coast**  
Amy Prendergast, Geoscience Australia

## Victoria talent/topics

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*[refer to other topic headings for additional Victorian speakers and topics]*

- **2.50 Monday**  
**Rediscover Victoria in 3D**  
Paul McDonald, GeoScience Victoria
  
- **11.05 Tuesday**  
**Quantitative assessment of undiscovered gold endowment in central Victoria – process and implications**  
Vladimir Lisitsin, GeoScience Victoria
  
- **11.25 Tuesday**  
**Predictive modeling of gold deposits; Walhalla – Woods Point region, Eastern Victoria**  
Megan Hough, Monash University
  
- **11.45 Tuesday**  
**Central Victorian deep crustal reflection seismic survey 2006: implications for mineralisation**  
Clive Willman, GeoScience Victoria
  
- **5.05 Tuesday**  
**Crustal architecture of Central Victoria: results from the 2006 deep crustal reflection seismic survey**  
Dr. Russell Korsch, Pmd\*CRG



## Tasmania talent/topics

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*[refer to other topic headings for additional Tasmanian speakers and topics]*

- **3.10 Monday**  
**The TasExplore Initiative and more: updating the 3-D geological model of Tasmania**  
Dr. Geoffrey Green, Mineral Resources Tasmania / Geological Survey Tasmania
  
- **3.10 Tuesday**  
**Drilling of shallow marine sulfide-sulfate mineralization in the south-eastern Tyrrhenian Sea, Italy**  
Prof. Bruce Gemmill, CODES, University of Tasmania
  
- **3.00 Wednesday**  
**Toward an understanding of tsunami risk in Tasmania**  
Colin Mazengarb, Mineral Resources Tasmania
  
- **11.35 Thursday**  
**A regional landslide susceptibility programme in Tasmania**  
Colin Mazengarb, Mineral Resources Tasmania

## SA talent/topics

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*[refer to other topic headings for additional SA speakers and topics]*

- **2.30 Monday**  
**A regolith and landscape evolution framework for mineral exploration under cover in the Northern Flinders Ranges – Frome Embayment, South Australia**  
Dr. Steve Hill, University of Adelaide / CRC LEME
  
- **2.30 Monday**  
**Ice-rafting in the Mid-Ediacaran (~580 Ma) Adelaide Geosyncline and Officer Basin, South Australia**  
Dr. Victor Gostin, University of Adelaide
  
- **3.10 Tuesday**  
**Distribution and ecology of benthic foraminifera in the Coorong Lagoon and adjacent waters, South Australia; to aid palaeo-reconstructions**  
Prof. John Cann, University of South Australia
  
- **4.05 Tuesday**  
**The Mt. Mulga barite-iron-oxide-copper-gold mineralisation, Olary Domain, South Australia**  
Martin Griessmann, University of Adelaide
  
- **4.45 Tuesday**  
**Resource mapping: a key ingredient for the mineral resources and development balancing act in South Australia**  
Stuart Robertson, Geological Survey Branch, PIRSA Minerals and Energy Resources
  
- **4.45 Tuesday**  
**Benthic Foraminifera assemblages in the northern Spencer Gulf, South Australia - further evidence for Holocene sea-level changes**  
Mary-Anne Binnie, University of South Australia
  
- **12.55 Wednesday**  
**Sedimentary uranium in South Australia's Frome Embayment: a case history of the first discoveries, 1967-1974**  
Dr. Barry Cooper, Primary Industries & Resources South Australia
  
- **12.35 Thursday**  
**Evolution of the Gawler-Adelie Craton: links with Antarctica, northern Australia and basement of the Trans-Hudson Orogen**  
Justin Payne, University of Adelaide

## WA talent/topics

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*[refer to other topic headings for additional WA speakers and topics]*

- **11.45 Monday**  
**The palaeontology and palaeoecology of the 2.7Ga Tumbiana Formation, Pilbara Craton, Western Australia**  
Jessica Coffey, Macquarie University
- **1.50 Monday**  
Dr. Tim Griffin, Geological Survey Western Australia
- **2.30 Monday**  
**Hydrogeology of the Leederville aquifer near Margaret River**  
David Schafer, Department of Water
- **3.10 Monday**  
**Understanding the landscapes of the Perth Region**  
Bob Gozzard, Geological Survey of Western Australia
- **4.05 Monday**  
**Using numerical modelling to target undiscovered gold in a brown-fields environment: an example from Tarmoola, WA**  
Warren Potma, CSIRO Minerals Down Under National Research Flagship
- **4.45 Monday**  
**Sedimentology and hydrogeology of Goods Road Palaeochannel, Perth, Western Australia**  
Sean Adamas, CRC LEME, Department of Applied Geology, Curtin University of Technology
- **5.05 Monday**  
**Groundwater – an agent of geology in land and water salinisation in the south-west of Western Australia**  
Jayath Da Silva, Department of Water
- **5.05 Monday**  
**Proposed IODP coring of Cenozoic sequences of the northern Carnarvon Basin of Australia to answer global eustatic questions**  
Dr. Neville Exon, Australian National University
- **11.45 Tuesday**  
**Evaluating the geology and petroleum prospectivity of frontier exploration areas within the offshore north Perth Basin**  
Diane Jorgensen, Geoscience Australia
- **12.25 Tuesday**  
**Does the Capricorn Orogen control seismicity in the Carnarvon Basin?**  
Dr. Myra Keep, University of Western Australia
- **2.30 Tuesday**  
**Coastal Geographic Information System for the northern agricultural region of the Western Australian coast**  
Alexandra Stevens, Curtin University

- **2.50 Tuesday**  
**A comparative gold prospectivity assessment of the Lake Victoria Greenstone Terrane, NW Tanzania and the Eastern Goldfields Province, Western Australia**  
 Dr. Frank Bierlein, University of Western Australia & Ivo M.A.Vos, Resolute Mining (Tanzania) Ltd
- **4.25 Tuesday**  
**The role of land use geoscience in urban planning and development in the Goldfields of Western Australia**  
 Chris Kojan, Geological Survey of Western Australia
- **4.25 Tuesday**  
**Sea level reconstructions from fossil coral reefs along the Cape Range coast, WA**  
 Dr. Andrea Dutton, Australian National University
- **5.05 Tuesday**  
**Using novel prospectivity mapping tools, Self Organising Maps (SOMs), Fuzzy Neural Networks (FNNs), and Radial Basis Functional Link Nets (RBFLNs), to evaluate the orogenic gold and IOCG potential of Finland**  
 Prof. David Groves, University of Western Australia
- **5.05 Tuesday**  
**Mineral potential mapping – geoscientific advice for public policy: an example from WA**  
 Dr. Lee Hassan, Geological Survey of Western Australia
- **5.25 Tuesday**  
**Titanium-zircon minerals – using geoscience in Western Australia to ensure future resource extraction**  
 Warren Ormsby, Geological Survey WA, Department of Industry & Resources
- **12.35 Wednesday**  
**Exploration for sandstone-type uranium deposits in Tertiary Palaeochannels in the south of Western Australia**  
 Prof. Mike Dentith, University of Western Australia
- **12.35 Wednesday**  
**The Glenburgh Terrane: a record of subduction and collision in the Paleoproterozoic Capricorn Orogen of Western Australia**  
 Dr. Simon Johnson, Geological Survey of Western Australia
- **5.15 Wednesday**  
**Towards a better assessment of the seismic hazard in the southwest of Western Australia**  
 Beatriz Estrada, University of Western Australia
- **12.15 Thursday**  
**Discovery trails to early Earth – a traveller’s guide to the east Pilbara**  
 Dr. Martin Van Kranendonk, Geological Survey of Western Australia

- **2.20 Thursday**

- **Tropicana Deposit: a new gold province in Western Australia**

- Dr. Mark Doyle, AngloGold Ashanti Limited

- **3.20 Thursday**

- **Geological history of the Flying Fox Nickel Deposit, Forrestania Greenstone Belt, Yilgarn Craton, Western Australia: a preliminary assessment**

- Jane Collins, The University of Western Australia

## **NT talent/topics**

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*[refer to other topic headings for additional NT speakers and topics]*

- **2.50 Monday**  
**Ngukurr groundwater investigation, Northern Territory, Australia**  
Jonothan Sumner, Northern Territory Government
  
- **4.05 Monday**  
**Opening up new base metals, uranium and REE provinces in central Australia through pre-competitive geoscience**  
Ian Scrimgeour, NT Geological Survey
  
- **2.40 Thursday**  
**Constraints on the genesis of the Nolans Bore REE-P-U-Th deposit, Northern Territory**  
Kelvin Hussey, Arafura Resources

**[ENDS]**