

SECOND CIRCULAR



AGCC Australian Geoscience
Council **Convention**

BIG ISSUES AND IDEAS IN GEOSCIENCE

14–18 OCTOBER 2018 | Earth Science Week

Adelaide Convention Centre

www.agcc.org.au

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MESSAGE FROM THE PRESIDENT OF THE AUSTRALIAN GEOSCIENCE COUNCIL

It is with great pleasure that we provide you with the Australian Geoscience Council Convention (AGCC 2018) Second Circular.

This circular introduces a more detailed Scientific Program and list of Workshops, details about Sponsorship and Exhibition Opportunities, as well as the outline of the structure for the **Big Issues and Ideas in Geoscience** day that is the cornerstone of the 2018 Convention. Information on abstract submission, critical dates, volunteer program and more is also provided.

The comprehensive Scientific Program with its 5 themes and numerous sub-themes covers a wide range of geoscientific disciplines. We are pleased to announce that Professor Iain Stewart, Dr Richard Blewett, Dr Bruce Godfrey, and Dr Allan Trench will be the leaders of the four **Big Issues and Ideas in Geoscience** summits on the second day of the Convention. We have no doubt that you will find something of relevance in the Convention's program, and we would like to take this opportunity to thank sincerely the many members of the Australian and global Geoscientific community who have contributed to its development.

The Pre- and Post-Convention field trips and workshops are important elements of the AGCC 2018. Outlines of the tours and workshops offered are provided herein and full tour details will be released on the website, www.agcc.org.au, as they become available, and in the Third Circular, due in May 2018.

We are also announcing the release of an early bird deal for the GeoEXPO that will run during the Convention, as well as a loyalty scheme for exhibitors that will apply after this inaugural Convention. Any organisation wishing to exhibit at the AGCC 2018 is well advised to book early.

The aim of this Convention goes well beyond your expectations as the program outline in the following pages will show. We are covering the full spectrum of Geoscience from the deep earth to recent surface processes. We are bringing together academia, industry and government to discuss rocks, resource development, new technologies and the boundaries of our science. We are providing a forum to enable all geoscientists to consider and debate some of the Big Issues facing us. We are giving our young professionals the background knowledge that they need to develop a satisfying career by seeing the full range of Geoscience specialities and skills.

We already have wide support for our shared vision to increase the profile of Geoscience in Australia and we are delighted to acknowledge **Geoscience Australia** as the Patron Sponsor for the inaugural AGCC. There will no doubt be challenging ideas, robust discussions and new connections at AGCC 2018. Above all, we hope that you can be part of this Convention and help us develop the future path of our science, our profession and our role in Australian society.

Thank you for your interest in the AGCC 2018. The Organizing Committee is very much looking forward to your participation in the Convention in Adelaide, 14 to 18 October, 2018.



Dr Bill Shaw

PRESIDENT, Australian Geoscience Council

CONVENTION ORGANISING COMMITTEE

Dr Bill Shaw, Chair - president@agc.org.au

Ms Sue Fletcher, Secretary - sue@gsa.org.au

Mr Kim Frankcombe, Treasurer - kfrankcombe@iinet.net.au

Mr Ashley Gordon, Director of the PCO (Carillon Conference Management) - ashley@ccm.com.au

Dr Graham Carr, Supporting Chair - graham.carr@csiro.au

Ms Leanne Gunther, Supporting Secretary - admin@agc.org.au

AusIMM - Treasurer Support

AGCC 2018 SUB COMMITTEES

Scientific and Technical Program

Dr Chris Yeats chris.yeats@industry.nsw.gov.au

This Subcommittee has oversight of all aspects of the scientific program including invited speakers and the abstract submission, review and approval process.

Big Issues and Ideas Day

Dr Caroline Tiddy caroline.tiddy@unisa.edu.au

This Subcommittee is developing the program of Big Issues and Ideas in Geoscience which will include invited speakers and discussions around topics of concern to all geoscientists and the public.

Sponsorship and Exhibition

Mr Mike Smith mike_rpgeo@optusnet.com.au

Recruitment of sponsors and exhibitors, design and sale of exhibition and management of commercial engagement with the Convention.

Field trips and Workshops

Mr Dale Sims dalesims@tpg.com.au

Field trip selection, content and management and oversight of workshops to be held before or after the Convention.

Early-Career Geoscientists and Volunteers

Ms Genna McDonagh genna.mcdonagh@gmail.com

Management of the volunteer and early-career delegate programs.

Education

Associate Professor Dr David Cohen d.cohen@unsw.edu.au

Connection with the extensive group of Geoscience educators at all levels, including primary and secondary schools, tertiary institutions, ongoing professional development for geoscientists and raising the general awareness of the public about Geoscience.

Advocacy, Media, Protocol

Dr Angela Riganti angela.riganti@dmirs.wa.gov.au

Representation of and engagement between Convention and government agencies and media; management of protocol matters.

Engagement with Stakeholders

Dr Steve Mackie steve.mackie@geosimconsulting.com.au

Management and liaison with Convention stakeholders.



Adelaide Convention Centre. Image courtesy of Dr Bill Shaw, AGC President

IMPORTANT DATES

27 February 2018	Field trips and workshops expressions of interest (EOI) open
16 June 2018	Abstract submissions close
7 July 2018	Early bird registrations close
28 July 2018	Formal notification to authors of acceptance or otherwise of Abstract
18 August 2018	Registration and payment deadline for presenters of papers (oral and poster) that will be included in the Convention
01 September 2018	Final program released (including submitted papers)
6 October 2018	Standard registrations close. A higher registration fee will apply to all registrations received after this date. No online registration will be accepted after this date. A higher onsite registration fee will apply to all registrations received onsite.

OVERALL STRUCTURE AND TIMING OF AGCC 2018

Pre-Convention Field Trips	10 October – 14 October 2018
Pre-Convention Workshops	13 – 14 October 2018
Registration opens, Exhibition set up, Business Meetings	14 October 2018
AGCC 2018 Welcome Reception	Evening, 14 October 2018
Opening Ceremony	First session, 15 October 2018
Scientific Program	15 – 18 October 2018
Big Issues and Ideas in Geoscience Day	16 October 2018
Business Meetings	Evenings, 15 – 18 October 2018
Convention Dinner	Evening, 17 October 2018
Closing Ceremony	Last session, 18 October 2018
Post-Convention Workshops	19 October 2018
Post-Convention Field Trips	19 – 23 October 2018

REGISTRATION FEES

Registration for the convention is open, and available through the **online registration portal**.

To qualify for the current Early Bird registration rates, registration with payment must be made by 7 July 2018. Official letters of confirmation will be provided to delegates by the Convention only after clearance of registration fee payment.

We will provide discounts to members of AGC Member Organisations (see p. 37), and honour reciprocal arrangements they have with international organisations. Please refer to the **www.agcc.org.au/registration** portal for the full details.

All registration fees shown are in Australian Dollars (AU\$) and include 10% GST.

Full Delegate Registration Fees	
Early Bird (Member) Closes 7 July 2018	AU\$1,000 (+ AU\$25 extra discount per society)
Early Bird (Non Member) Closes 7 July 2018	AU\$1,200
Standard (Member) Closes 6 October 2018	AU\$1,200 (+ AU\$25 extra discount per society)
Standard (Non Member) Closes 6 October 2018	AU\$1,400
Late (Member)	AU\$1,400 (+ AU\$25 extra discount per society)
Late (Non Member)	AU\$1,600
Student (Member)	AU\$250
Student (Non Member)	AU\$500
Concession - Early Bird (Member) The concession rate is available to retired and unemployed geoscientists. Status of employment at time of registration will be assessed by the relevant Member Organisations.	AU\$600
Concession - Standard (Member) The concession rate is available to retired and unemployed geoscientists. Status of employment at time of registration will be assessed by the relevant Member Organisations.	AU\$800
Concession - Late (Member) The concession rate is available to retired and unemployed geoscientists. Status of employment at time of registration will be assessed by the relevant Member Organisations.	AU\$1,000

Delegate registration fees include:

- Convention attendance
- Morning & afternoon refreshments
- Lunch during the convention
- Attendance at the Welcome Reception
- Delegate bag including the convention materials
- Programme & abstract access

Exhibitor staff registration includes:

- Morning & afternoon refreshments
- Lunch during the Convention
- Access to the Exhibition area
- Attendance at the Welcome Reception
- Excludes access to the Convention sessions
- Excludes access to the Convention Dinner

MESSAGE FROM THE SCIENTIFIC AND TECHNICAL PROGRAM CHAIRS

Welcome to the Scientific and Technical Program of the AGCC 2018. The overall theme of the Convention ***Big Issues and Ideas in Geoscience*** will offer the opportunity to examine and consider some of the emerging issues that affect all geoscientists and society at large.

A broad scientific program based on five themes will cover a wide-ranging selection of Geoscience topics, including theoretical and applied Geoscience, mineral and energy resources, environmental and societal science and emerging technologies. Five concurrent Symposia (Monday 15, Wednesday 17 and Thursday 18 October) will address five main themes, and each theme is further developed through several sub-themes (55 in total). Tuesday 16 October is the ***Big Issues and Ideas in Geoscience*** day and will be specifically dedicated to the overall convention theme. The day will comprise four summits focusing on energy security, resource development in Northern and Regional Australia, Geoscience education and communication, and the impact of boom-and-bust commodity cycles. Each summit will be introduced and moderated by a leader in research and technology in the field.

We would like to take this opportunity to thank the theme, sub-theme and summit coordinators and the many members of the Geoscientific community who have made valuable contributions to the Scientific and Technical Program.

We hope you find the program both interesting and exciting. We are confident that the scientific sessions, plenary presentations and summits 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.

Chris Yeats

Chair, Scientific and Technical Program Subcommittee

Caroline Tiddy

Chair, Big Issues and Ideas Subcommittee

BIG ISSUES AND IDEAS IN GEOSCIENCE DAY

Tuesday 16 October 2018 is set aside in the program for consideration of the four ***Big Issues and Ideas in Geoscience*** identified for this Convention.

The day will feature two concurrent summits in the morning and two in the afternoon. Each summit will be introduced and moderated by the summit convener. The issues addressed in each summit are closely aligned with several symposia in the scientific program and are intended to promote discussion and debate.

Our objective is to focus on four specific Big Issues where Geoscience interacts with Society. There will be presentations and arguments representing all views on these very topical issues. We are putting together a great line-up of speakers led by well-known conveners who will help us explore the issues, seek input from you in the audience and help us develop strategies to move forward. These strategies will be the Ideas that we are seeking to develop and take to Government, our colleagues and the community.



Students learning about rocks in the field. Image courtesy of Suzy Urbaniak, CORE

Our energy trilemma options – security, accessibility and sustainability

Dr Bruce Godfrey



Bruce's career has been built in business, innovation investment, government, and technology development fields. He has focused on the advancement and commercialisation of technologies (particularly new energy technologies ranging from solar cells to fuel cells to low emission coal utilisation), investment readiness of products and companies, and innovation policy and programs.

A Fellow and Director of the Academy of Technology and Engineering, he is also the Chair of their Energy Forum. He has Chaired expert working groups for the Australian Council of Learned Academies on Delivering Sustainable Urban Mobility (2015) and on Energy Storage (2017).

Our energy supply and storage systems, fixed and those for transport, are rapidly transitioning away from the long-used earth resources (coal, oil, nuclear) to gas and above-ground resources (wind, solar, hydro, battery). So what is the future for Geoscientists and non-renewable resources in contributing to the security, equity and sustainability balance of the energy trilemma?

Solving this puzzle requires policy measures that create and sustain supportive markets, regulations and financing for the deployment and development of low emission energy supply, and new technologies. Finding agreement among policy makers, regulators, technology advocates and activist groups has, in recent years, resulted in a lot of 'dirty words' as options for a 'clean world' being debated at local, State/Territory, Federal and international levels.

This Summit will explore: **The challenges and opportunities for earth resources and Geoscientists in energy supply and use.** The session will be structured to maximise discussion time with five talks of a maximum of 10 minutes each proposed, to stimulate a lively examination of the challenges and opportunities.

Resource-driven development of Northern and Regional Australia

Dr Richard Blewett



Dr Richard Blewett is the General Manager of the Minerals Systems Branch at Geoscience Australia (GA). He has responsibility for leading GA's minerals science programme and the promotion of Australia as an attractive investment destination for minerals exploration.

*Richard was the Chief Editor and leader of a major book published in 2012: **Shaping a Nation: a Geology of Australia**. He has been involved in the UNCOVER initiative and the minerals component of the new Exploring for the Future programme at GA.*

Five thought leaders will each address the same question from the perspective of their main stakeholders: **What should Northern Australia look like in 2050 and what are the paths, the costs and the opportunities in getting to that desired state?**

Proposed participants in leading this debate will include representatives from Government (Commonwealth and State), Local Council, Traditional Owners, Pastoralists and Industry (Mining and Energy).

This Summit will seek to identify the way(s) forward, the foreseeable roadblocks and the consequences of not addressing them (and perhaps those not yet apparent) effectively.

Geoscience education and new modes of communication

Professor Iain Stewart



Iain is Professor of Geoscience Communication at Plymouth University and Director of its Sustainable Earth Institute. His long-standing research interests are in interdisciplinary investigations of geological hazards and abrupt environmental change, and more recently in the communication of 'contested Geoscience' to the public.

He regularly presents Earth science programmes for BBC television, including Earth: The Power of the Planet; How Earth Made Us, How to Grow A Planet, The Rise of the Continents and Planet Oil.

This Summit will focus on how to get what we want (for Geoscience) by addressing two questions: **What are our messages? How do we get them to our target audiences?**

Not only do we need clarity of purpose, we must face up to the fact that others have already become proficient and effective at advocacy. A long-term strategy is needed that we can all support and benefit from.

Geoscientists are well-placed through their training and experience to add value to education (as highly trained professionals), to policy (who are flexible), to society (adaptable) and the future (problem solvers). These are large, complex, unconstrained systems for which we have many appropriate skills.

Smoothing the impact of boom and bust commodity cycles

Dr Allan Trench



Allan Trench is Professor and MBA Director at the University of Western Australia's Business School and is Adjunct Professor at the Centre for Exploration Targeting, School of Earth Sciences at UWA. His passion is to combine best-practice minerals science, especially in exploration, with leading business practices and new business innovation.

Allan serves on the boards of a number of emerging mineral resources companies exploring in Australia, South America and North America. He is the author of 10 books, several of which discuss the financial and managerial aspects of the mineral resources sector. Allan has previously worked in mining and exploration (for WMC and others), in oil & gas (for Woodside) and in management consulting (for McKinsey & Company).

Ensuring Geoscientists are engaged in meaningful work through good times and bad is challenging for individuals and for our society. We need to critically consider: **What can industry, university, government and professional organisations do better to support**

Geoscience (our understanding of the Earth) and our capability to contribute to national wealth, during the busts as well as during the boom times?

To overcome the cyclicity of metals and energy commodity prices, Geoscientists must consider how to future-proof their profession.

This is all part of a bigger question. Arguably, Geoscience is critical for economic development, but few of us work on issues related to sustainable development. If Geoscience is to be useful to society then how does our professional community make itself more relevant to the complex issues around how we maintain economic well-being, while addressing poverty, hunger, social justice and other sustainable development goals?

SCIENTIFIC SYMPOSIA — THEMES AND PROPOSED SUB-THEMES

The Scientific Program is outlined over the following pages and is available on the AGCC 2018 website www.agcc.org.au. This is the basis for the call for abstracts and for inviting speakers. Abstract submission closes on 16 June 2018. The number and range of abstracts submitted will be taken into account in designing the final program and timetable for the 4 day program.

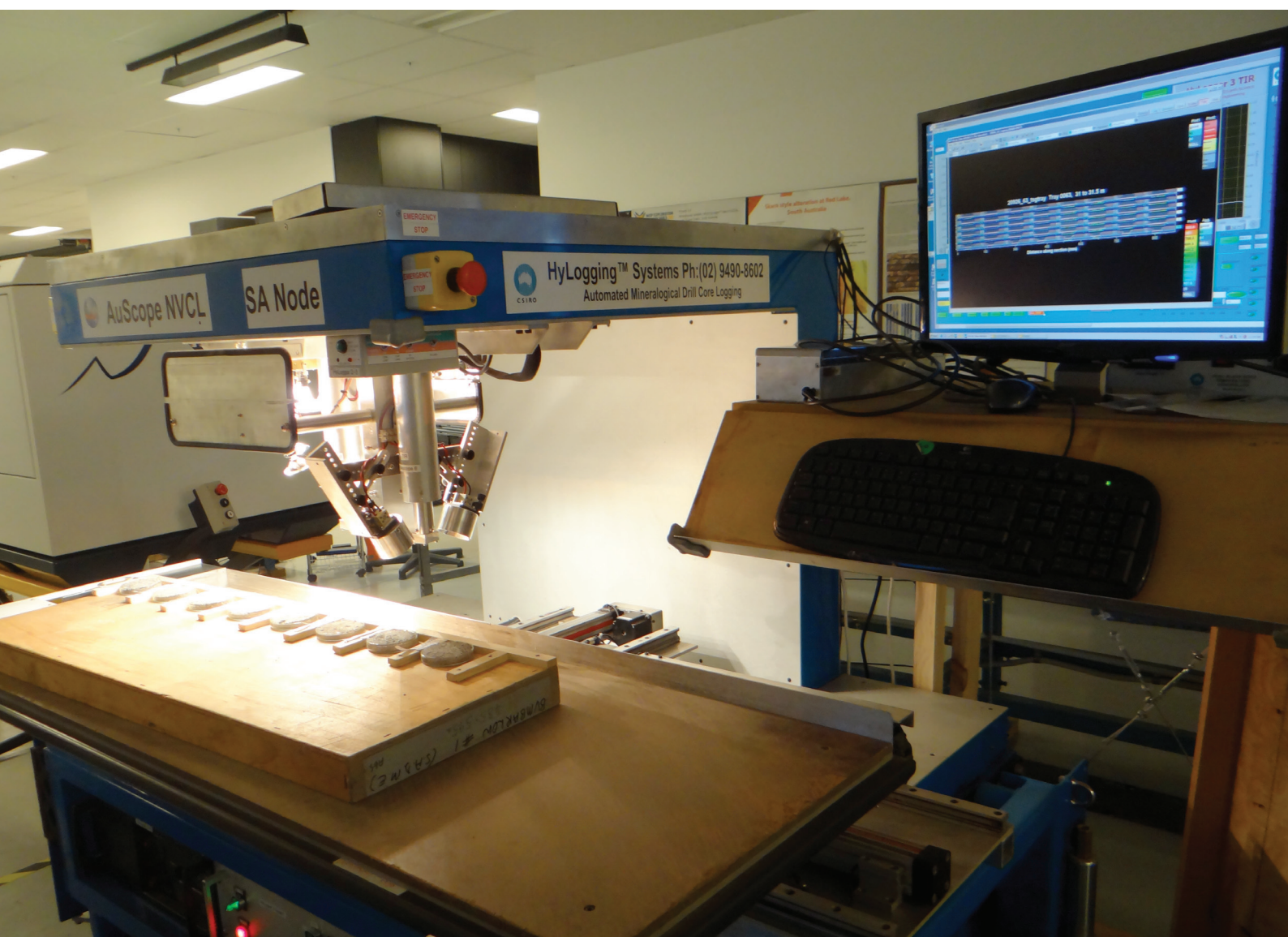
All Symposia in the Scientific Program are expected to include both oral and poster presentations. Individuals will only be permitted to deliver one oral presentation, but they may co-author multiple oral presentations and may give multiple poster presentations. Invited keynote speakers may deliver a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

The current plan is to run 10 concurrent technical sessions (nominally two at the time per Theme) for three days (Monday, Wednesday, and Thursday). This equates to 560 speaking slots, or nominally 56 per Theme.

Oral presentations will be 15 minutes. Theme Conveners will have the flexibility to assign longer timeslots for Session Keynote Speakers.

Any questions or requests for further information should be addressed to the Theme Conveners and Symposia Champions, whose email addresses are listed in the program following.

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



The HyLogger spectral scanner at the South Australian Drill Core Reference Library. Image courtesy of Eline Baudet.

Theme and Sub-Theme Champions

1. UNDERSTANDING THE EARTH		Professor Dietmar Müller dietmar.muller@sydney.edu.au
Sub-THEME	DESCRIPTION	CHAMPIONS
1.1 Deep Earth systems and planetary fluxes		
1.1.1 <i>Decoding Earth's supercycles: from the core to the crust</i>	The Earth history is characterised by cycles with a wide range of wavelengths: from daily cycles to cycles of hundreds and even a thousand million years. In this session, researchers will present records of such cycles (particularly those long-wavelength ones) as shown by various proxies, explore the fundamental drives behind these cycles, and how such drivers and processes interacted to form the evolving Earth system that controlled the formation and distribution of Earth resources, the evolving Earth environment, and the evolution of life on Earth.	Zheng-Xiang Li (Curtin University) and IGCP 648 team Z.Li@exchange.curtin.edu.au
1.1.2 <i>Optimisation and uncertainties in Earth models</i>	Recent advances in high-performance computing, software development and data science open the opportunity to integrate paleogeographic information with geodynamic modelling tools and geo-datasets to reveal long-term, non-linear feedback between processes in Earth's interior, the crust, and sedimentary/surface environments. This session invites contributions to process models at a variety of spatio-temporal scales as well as big and complex data-analysis approaches to make use of the wide variety of geological datasets that are becoming available to understand Earth evolution, including how to cope with uncertainty in a fragmented geological record, heterogeneous data, large high resolution datasets and spatio-temporal variability of processes.	Malcolm Sambridge (Australian National University) malcolm.sambridge@anu.edu.au Rhodri Davies (Australian National University), Rohitash Chandra and Dietmar Müller (Sydney University)
1.1.3 <i>Earth's redox processes</i>	Processes that involve oxidation and reduction have driven many of Earth's most dramatic changes, such as fractionation of the Earth's core and oxygenation of its atmosphere. Further, formation of many of Earth's largest ore deposits require redox reactions: reduction of sulfate and sulfide, or oxidation of uranium to the soluble U(VI) state. In this session we will explore characterisation, prediction, and interpretation of these processes, and their implications for Earth's evolution.	Katy Evans (Curtin University) K.Evans@curtin.edu.au
1.1.4 <i>Crustal evolution of Archean Cratons</i>	Over the last decade or so, an increasing amount of field and numerical studies support the concept that the Mesoarchean and Neoarchean record the transition from an early, stagnant lid to a more modern plate tectonic regime. It is, however, contentious to what degree modern geological processes and concepts can be called on to explain the secular differences that Archean cratons exhibit compared to younger geological settings in terms of their lithospheric architecture, petrogenesis and crustal fractionation, litho-stratigraphy, tectono-metamorphic evolution, and resources endowment. We invite presentations from all disciplines that contribute to the understanding of the evolution of Archean lithosphere, in particular with regard to the fundamental processes involved.	Michael Doublier (Geoscience Australia) Michael.Doublier@ga.gov.au Klaus Gessner and Hugh Smithies (Geological Survey of Western Australia), David Champion (Geoscience Australia)

Theme and Sub-Theme Champions cont.

Sub-THEME	DESCRIPTION	CHAMPIONS
1.2 Sedimentary basins		
1.2.1 <i>Understanding basin formation and evolution from a plate-tectonic perspective</i>	This session sets out to explore current research into a better understanding of basin formation and evolution from a plate-tectonic perspective. We invite contributions based on observation and experimentation, from large scale structural analysis to analogue or numerical modelling. We aim to cover a large range of basin-driving processes including mantle convection, lithospheric deformation, structural evolution, tectonic versus thermal subsidence and interactions with surface processes particularly erosion, transport and deposition of sediment. Sedimentary basins form in a wide range of geological settings and are associated with all tectonic regimes: convergent, divergent, transform and intraplate. Their formation and evolution through time represent a fundamental part of the Wilson cycle and a key part of the plate tectonics theory. Basins around the world have been widely documented, both by academics and the industry, using a wide range of approaches and techniques and have arisen as objects of high scientific and economic importance. Yet explaining the structural complexity of sedimentary basins and how it relates to the tectonic context remains a major challenge of our communities. It requires integrating field data and experimental results across all the disciplines of Earth Sciences.	Sara Morón-Polanco (University of Melbourne) s.moron@unimelb.edu.au Romain Beucher and Rebecca Farrington (University of Melbourne), Chris Elders (Curtin University)
1.2.2 <i>Source-to-sink sedimentary basin processes</i>	Sedimentary basins represent major archives of the Earth's evolution. They capture sea level change, climate history and variations of surface topography due to geodynamic, tectonic and surface processes. This session addresses the processes controlling their formation, evolution and architecture, including but not limited to lithospheric-scale dynamics, source-to-sink relationships, stratigraphy, drainage development and surface alterations. We welcome studies in various temporal and spatial scales and in a variety of tectonic settings. We encourage contributions linking tectonics and surface processes and integrating different range of methodologies from observations to numerical and analogue modelling.	Tristan Salles (Sydney University) tristan.salles@sydney.edu.au Julien Bourget (University of Western Australia)
1.3 Marine geoscience - the evolving oceans		
1.3.1 <i>50 years of Scientific Ocean Drilling: Current discoveries and continuing technological advances</i>	In the Jubilee year eve of the International Ocean Discovery Program (IODP), Australia and New Zealand's participation has continued to grow in strength and significance. IODP has conducted significant research in the Australasian region from proposals often initiated, proposed and lead by ANZIC (Australia and New Zealand IODP Consortium) members. Other internationally located expeditions have enabled ANZIC members to contribute to significant breakthroughs in understanding global climatic events and be exposed to the new technology surrounding drill technology and deep sea biosphere recovery. This symposium aims to showcase the rich diversity of recent IODP Expedition findings and to bring awareness of new equipment and technologies being employed to advance our knowledge underpinning the IODP themes of Earth in Motion, Earth Connections, Biosphere Frontiers, and Climate and Ocean Change. We welcome submissions to this ANZIC-supported symposium covering recent findings and technological advances related to all IODP expeditions.	Leanne Armand (ANZIC Office, Australian National University) leanne.armand@anu.edu.au

Theme and Sub-Theme Champions cont.

Sub-THEME	DESCRIPTION	CHAMPIONS
1.4 Earth's climate – past, present and future		
1.4.1 <i>Earth's climate – past, present and future</i>	This session invites contributions for analysis of current data and projections relating to regional or global climate change and will examine evidence from the geological record of past climate change. We encourage contributions analysing rates of climate change, global and regional sea level, CO ₂ levels and ocean or atmospheric temperatures, geosphere–biosphere feedbacks and climate sensitivities over a wide range of temporal and spatial scales. How can the geological record be used to inform us about possible future climate trajectories of the Earth? We particularly encourage contributions combining observational data with high-performance computer models and data science approaches to unravel climate and environmental change through time.	Adriana Dutkiewicz (Sydney University) adriana.dutkiewicz@sydney.edu.au
1.5 The solar system and beyond		
1.5.1 <i>The solar system and beyond</i>	A revolution in exoplanet detection, and in understanding and characterising solar system objects, has altered the way we understand planetary formation and evolution. This session brings together recent work on planetary interiors, disk evolution, and surface processes, to address the building blocks of planets, the forces that shape them, and, ultimately, their habitability and surface (or subsurface) conditions.	Craig O'Neill (Macquarie University) craig.oneill@mq.edu.au Maynard Casey (ANSTO)



The Nan Hai rig drilling offshore Western Australia. Image courtesy of Santos Ltd.

Theme and Sub-Theme Champions cont.

2. LIFE ON EARTH – ORIGINS AND DIVERSITY		Professor Simon George simon.george@mq.edu.au
Sub-THEME	DESCRIPTION	CHAMPIONS
2.1 The origins and development of life	This session will explore recent and new suggestions and theories about the origin and development of life on Earth. Papers are encouraged that address the observational record from the Precambrian, including new geological and geochemical data. Additionally, we welcome submissions based on laboratory experiments and analogue studies that provide insights into some of the first bio(geo)chemical reactions that led ultimately to life.	Martin van Kranendonk (University of New South Wales) m.vankranendonk@unsw.edu.au
2.2 Ediacaran and Cambrian Symposium	The Ediacaran was the time when multicellular life first became abundant in the rock record. The Cambrian saw the “Cambrian explosion” with the development and rapid evolution of an amazing variety of biota in the early part of the Period. Richly fossiliferous Ediacaran and Cambrian successions are superbly exposed in South Australia, particularly in the Flinders Ranges and on Kangaroo Island. We welcome submissions dealing with advances in the knowledge of Ediacaran and Cambrian biota including their stratigraphic significance. Both oral presentations and posters are welcome.	Jim Jago (University of South Australia) Jim.Jago@unisa.edu.au
2.3 Mass extinctions	There are five mass extinctions in Earth history that transformed much of the life on Earth, and we are currently at the start of the sixth that is anthropogenically-driven. There has been much written about these, but some aspects still remain poorly constrained, for example the exact temporal and causal processes. The session welcomes presentations in paleobiology, biogeochemistry and geology that address the causes, processes and results of the mass extinctions.	Kliti Grice (Curtin University) K.Grice@curtin.edu.au
2.4 Ancient and historical record of life in Australia	This session seeks to unite a wide spectrum of papers covering significant paleobiological topics on Australia’s Phanerozoic faunas and floras. Ideally papers will present new and significant work including syntheses and cross-disciplinary findings of broader interest to the paleontological community and to broader geoscience. The session welcomes topics in invertebrate and vertebrate paleobiology and paleobotany/palynology as well as paleoecology, taphonomy, ichnology and geochemistry.	Gregg Webb (University of Queensland) g.webb@uq.edu.au
2.5 The limits of life on Earth – extremophiles	Extremophiles inhabit a very large variety of places on Earth, including the deepest oceans, ice caves and glaciers, very dry desert regions and deep underground in rocks. In the last few years it has become apparent that the deep biosphere contains more complex life than simple microbial communities, including eukaryotes. Defining and exploring these limits of life on Earth help inform the search for life on other planets and moons. We welcome submissions that cover all these topics, and especially new information on life inhabiting rocks.	Gordon Southam (University of Queensland) g.southam@uq.edu.au

Theme and Sub-Theme Champions cont.

Sub-THEME	DESCRIPTION	CHAMPIONS
2.6 Geobiology – mineral/rock interactions with organic hydrocarbons	Geobiology investigates the interaction of biota with geochemical and sedimentary processes throughout Earth history. We welcome submissions from across the sub-disciplines of geobiology, including geochemistry, geomicrobiology, biomineralisation and sedimentology. We encourage contributions that integrate these to determine the role of life in the Earth System, and to understand the co-evolution of life and the environment. Contributions that describe current questions and challenges in the field, present novel tools, techniques or approaches are particularly welcome.	Stefan Löehr (Macquarie University) stefan.loehr@mq.edu.au
2.7 Life beyond our planet	The first (and only) mission to Mars to directly search for biological evidence was the Viking Mars Exploration Program in the 1970s, which was extremely expensive (US\$1bn in 1976 dollars - US\$11bn in today's dollars). At that time we did not know about ancient stromatolites in the Pilbara of Western Australia, or the controversy that would rage for 40 years on whether these stromatolites are biological or geological in origin. If we had, would the Viking landers have looked for habitability instead of biology, to establish first whether the planet was ever capable of supporting life as we know it? The mission landed two landers successfully, but the results were (in hindsight) predictably controversial — we did not know about the presence of perchlorate either. As a result the disappointment shut down Mars exploration for the next two decades. Abstracts are invited on the status of evidence of habitability — and the challenges of seeking life — among the planets and moons of the solar system and beyond.	Carol Oliver (University of New South Wales) Carol.Oliver@unsw.edu.au
2.8 Earth, Life and Ores	This session focusses on the co-evolution of Earth and life over geological time and the critical role that biology, interactions, and by-products have played in preconditioning sites for mineralization, or the active role that they play in the mineralization process. We welcome posters and oral presentations that focus on, but are not limited to: black shale and sediment-hosted ore deposits and their biological origins, the role of organic–inorganic interactions in facilitating metal enrichments, influence of biological processes at sites of deposition, life and sulfide precipitation at hydrothermal vents, how the nature of the oceans and atmosphere has evolved over geological time, and impact that anoxia and euxinia may have on metallogenic processes. We also welcome interesting research that focusses on bio-mediation and processing of ores. We believe that this session is very complementary to those already proposed and will provide an integration of some of the concepts discussed under this theme.	Dr Sean Johnson (iCrag, Irish Centre for Research in Applied Geosciences & University College Cork) sean.johnson@ucc.ie Professor Ross Large (University of Tasmania) ross.large@utas.edu.au

Theme and Sub-Theme Champions cont.

3. RESOURCES – DISCOVERY, DEVELOPMENT, USE AND SUSTAINABILITY		Dr Kevin Cassidy barerock@iinet.net.au
Sub-THEME	DESCRIPTION	CHAMPIONS
3.1 Mineral systems – the challenge of discovery under cover	It is well recognised that the vast majority of outcropping or shallowly covered mineral deposits have been discovered, and that greenfields mineral exploration will increasingly concentrate on terranes that are largely covered. Although exploration through cover is a major technical challenge, it is also an opportunity – most under-cover regions have seen little, if any, effective exploration. This sub-theme concentrates on the data, methods and knowledge needed for effective exploration under cover, including emerging geophysical, drilling and geochemical technologies, methods of extracting geological knowledge from geophysical and geochemical data, and improving mineral system understanding, particularly how the relationship between tectonics and mineralisation can be used in targeting. The sub-theme also provides opportunities to present new research on mineral deposits, particularly the non-traditional metals and industrial minerals that are increasingly needed in emerging technology-driven industries.	David Huston (Geoscience Australia) David.Huston@ga.gov.au Carl Spandler (James Cook University) carl.spandler@jcu.edu.gov.au Dr Kevin Cassidy (Barerock Geological Services) barerock@iinet.net.au Mark Noppe (SRK Consulting) mnoppe@srk.com.au
3.1.1 <i>Effective exploration and discovery under cover</i>	This session presents case studies where new geophysical, drilling and geochemical technology enables cost-effective exploration under cover.	Dr Kevin Cassidy (Barerock Geological Services) barerock@iinet.net.au
3.1.2 <i>Making better exploration decisions through an integrated geoscience approach</i>	This session explores the benefits of using all available geosciences data to provide the most reliable basis for exploration decision-making and from which to develop the most appropriate and cost-effective exploration programs.	Marcus Willson (CSA Global) marcus.willson@csaglobal.com
3.1.3 <i>Understanding mineral systems for exploration – from craton to micronscale</i>	This session covers the use of the mineral system approach to exploration from area selection to discovery.	Dr David Huston (Geoscience Australia) David.Huston@ga.gov.au
3.1.4 <i>Tectonic and earth evolution controls on the spatial and temporal localisation of ore deposits</i>	This session assesses temporal and spatial links of ore formation with tectonics and Earth evolution and how these links can be used in mineral exploration.	Dr David Huston (Geoscience Australia) David.Huston@ga.gov.au
3.1.5 <i>Technology metals and minerals – the importance of non-traditional commodities in the evolving economy</i>	This session deals with the geology and geochemistry of niche commodities such as lithium, cobalt, graphite, and rare earth elements that are becoming increasingly more important in technology-driven industries.	Andrew Scogings (CSA Global) andrew.scogings@csaglobal.com Dr Carl Spandler (James Cook University) carl.spandler@jcu.edu.au
3.1.6 <i>New frontiers in ore system research</i>	This session explores new concepts, tools and methodologies in ore system research and applications to mineral discovery.	Dr Carl Spandler (James Cook University) carl.spandler@jcu.edu.au

Theme and Sub-Theme Champions cont.

Sub-THEME	DESCRIPTION	CHAMPIONS
3.2 Energy systems – lessons learnt and future energy mix	This sub-theme is dedicated to discussing the full spectrum of current and future energy systems, which includes coal and petroleum at one end, via the various metals used for the release of energy (such as uranium) to sustainable energy sources such as hydroelectric and geothermal energy. The sub-theme also considers helium due to its intimate association with hydrocarbon production in the region, and then examines the impact of all of these resources on the Australian and global economy, within the context of a CO ₂ -conscious world where a “social licence to operate” is becoming increasingly important.	Dr Tennille Mares (Santos Ltd) tennille.mares@santos.com Dr Steve Mackie (Geosim Consulting) steve.mackie@geosimconsulting.com.au Professor Peter McCabe (Adelaide University) peter.mccabe@adelaide.edu.au Iain Campbell (South Australia Govt) iain.campbell@sa.gov.au
3.2.1 Future energy mix	This session looks at trends in demand and supply for the various energy sources currently used in Australasia, Southeast Asia and worldwide.	Professor Peter McCabe peter.mccabe@adelaide.edu.au
3.2.2 Energy from coal	This session takes a broad look at coal as a current and future energy source; in addition to traditional coal mining, the session also examines the burgeoning CSG industry, recent exploration for gas from deep coal beds, and the controversial technique of in-situ gasification.	Dr Tennille Mares (Santos Ltd) tennille.mares@santos.com
3.2.3 Petroleum and its co-products	This session looks at possible future sources of oil and gas by casting a critical eye over the region's unexplored and under-explored basins, and by examining how new thinking and new technologies have revitalised mature hydrocarbon provinces. The session also considers Helium due to its intimate association with hydrocarbon production in the region and Australia's potential to become a globally-significant producer of this strategically-important element.	Iain Campbell (South Australia Govt) iain.campbell@sa.gov.au
3.2.4 Sustainable energy sources	This session looks at sustainable energy sources, including pumped hydroelectricity. It also considers the current and potential future use of geothermal energy in the region, both for electricity generation and for direct-use heating and cooling applications.	Dr Steve Mackie (Geosim Consulting) steve.mackie@geosimconsulting.com.au
3.2.5 Energy metals	This session looks primarily at the exploration for Uranium and Thorium as sources of nuclear energy.	TBC
3.2.6 Geoscience aspects of the storage of energy related waste	Geoscience's contribution to the energy cycle doesn't end when the resource is taken out of the ground. This session looks at how Geoscience helps to deliver safe and secure long-term storage of the by-products of energy generation, such as CO ₂ sequestration, the disposal of radioactive waste and mine remediation.	TBC
3.2.7 Using geoscience to address social licence concerns for energy projects	This session looks at how Geoscientists can better interact with social scientists to help dispel the myths and misinformation that surround many of the techniques employed during energy-related projects.	Iain Campbell (South Australia Govt) iain.campbell@sa.gov.au

Theme and Sub-Theme Champions cont.

Sub-THEME	DESCRIPTION	CHAMPIONS
3.3 Water systems – quantity, quality and sustainability	<p>Groundwater is one of the Australia's most important natural resources, supplying more than 30% of total water consumption and generating national economic activity worth over AU\$34 billion across agriculture, mining and industry. There are a myriad of current issues in which groundwater is crucial, including successful implementation of the Murray–Darling Plan, impacts of unconventional gas and hydraulic fracturing, impacts of mining, radioactive and hazardous waste disposal, future development of Northern Australia, the role of groundwater in urban and rural water security, cultural flows, population growth, and the impacts of climate change.</p> <p>This sub-theme focuses on groundwater and its quality, and deals with the vital connection of groundwater with surface water, its role in supporting groundwater-dependent ecosystems and the conjunctive management of groundwater and surface water. The sub-theme will present state-of-the-art studies and approaches for understanding, conceptualising, predicting, modelling, measuring and managing groundwater quantity, quality and sustainability.</p>	<p>Dr Narelle Neumann (Geoscience Australia) Narelle.Neumann@ga.gov.au</p> <p>Professor Craig Simmons (Flinders University) craig.simmons@flinders.edu.au</p>
3.3.1 Groundwater challenges and opportunities	This “big picture” session discusses key challenges and opportunities for groundwater science, education, policy and management in Australia and internationally. Current major national groundwater initiatives and their key findings, outcomes and impact are discussed.	Professor Craig Simmons (Flinders University) craig.simmons@flinders.edu.au
3.3.2 New groundwater technologies and approaches	This session focuses on the state-of-the-art technologies and approaches that are employed to understand, conceptualise, predict, model, measure and manage groundwater across a large range of spatial and temporal scales.	Dr Narelle Neumann (Geoscience Australia) Narelle.Neumann@ga.gov.au
3.3.3 Pre-competitive geoscience data and information to understand groundwater systems	This session focuses on the results from new studies that integrate a range of geoscience data to improve our understanding of groundwater processes and/or the quality and quantity of water resources at the local to national scale.	TBC
3.3.4 Evaluating the potential impacts to groundwater from resource development	This session explores new approaches to regional assessments that use scientific information to better understand the potential impacts of resource, agriculture and urban developments on water and the environment.	TBC
3.3.5 Groundwater science for policy development and decision making	This session discusses the range of Geosciences needed to inform local, state and national water policy development and to inform decision making by government, industry and communities.	TBC
3.4 Resources sustainability – responsible investment and management	The concept of sustainability generally incorporates goals in nine areas of sustainable practices: green building, clean energy, transportation, climate protection, sustainable operations, waste reduction and recycling, environmentally preferable purchasing, sustainable foodservice, and sustainable water systems. This sub-theme examines the interrelated nature of each of these goal areas and the impact (both positively and negatively) resource Geoscience has on them. Critical decision-making skills will need to be addressed so participants can understand how to make decisions in such an environment along with an understanding of what resources are and what trends currently exist in their discovery and development.	<p>Dr Steve Mackie (Geosim Consulting) steve.mackie@geosimconsulting.com.au</p> <p>Mark Noppe (SRK Consulting) mnope@srk.com.au</p>

Theme and Sub-Theme Champions cont.

Sub-THEME	DESCRIPTION	CHAMPIONS
3.4.1 <i>Resource investment and management</i>	The economic implication of resource development requires making the right decision(s). This session will tie in with UN & international banks' requirement to consider 'responsible investment' or the so called "triple bottom line," i.e. going beyond individual elements towards a more holistic project or portfolio view.	Mark Noppe (SRK Consulting) mnoppe@srk.com.au
3.4.2 <i>Trends in resource exploration and development</i>	This session will address what resources are, how much currently exists and what trends reveal about possible future sustainability in order to facilitate decision-making into the future.	Dr Kevin Cassidy (Barerock Geological Services) barerock@iinet.net.au
3.4.3 <i>Resources definition</i>	This session will examine mineral and petroleum industries developing a code for transparent and responsible reporting that works for all resources and resource estimators.	Dr Steve Mackie (Geosim Consulting) steve.mackie@geosimconsulting.com.au
3.5 <i>Technology integration</i>	Most new discoveries are made at the intersection or boundary between known disciplines. As we integrate disciplines we can leverage known and working concepts in new areas leading to improvements and new discoveries. This sub-theme will look at the successes that have come as technologies, concepts and skills used in one discipline can be leveraged in another area resulting in improvements. For example, the use of coiled tubing drilling is a well-used practice in the petroleum industry but is recently being trialled in the minerals industry with positive results. Most resource-based Geosciences have their own language but if integrated with other disciplines, for example engineering, greater positive outcomes can be achieved. The move from siloed discipline company structures to asset-based structures gives greater focus on economic outcomes.	Dr Steve Mackie (Geosim Consulting) steve.mackie@geosimconsulting.com.au



Two of the next generation RoXplorer® drill rigs in action at Brukunga (South Australia), using coiled tubing to achieve highly efficient deep penetration sampling of exploration targets. Image courtesy of Deep Exploration Technologies Cooperative Research Centre (DET CRC).

Theme and Sub-Theme Champions cont.

4. APPLIED GEOSCIENCES IN THE 21st CENTURY – INNOVATION, TECHNOLOGY AND THE FUTURE		Chris Woodfull cwoodfull@srk.com.au
Sub-THEME	DESCRIPTION	CHAMPIONS
4.1 Geohazards, risk and mitigation	This sub-theme is dedicated to recent advances in Geo-hazards and Geo-risk. The topics to be covered include, but are not limited to, hazard mapping, risk assessment and design of mitigations against landslides (submarine or terrestrial), debris flows, rock fall, tsunami and earthquakes. Contributions on climate-related hazards (e.g. methane burst) will also be considered. The Geo-risk theme will extend methods to manage uncertainties related to natural variability of Geomaterials.	Olivier Buzzi (Newcastle University) olivier.buzzi@newcastle.edu.au Anna Giacomini (Newcastle University) anna.giacomini@newcastle.edu.au
4.2 Mining geology and geometallurgy	Mining geology and geometallurgy are key activities in the resources value-chain and critical in optimising the extraction and processing of all mineral assets. Although often identified separately they are interlinked functions that reflect the need for consideration of and interaction with downstream users of the resource to maximise benefits for all. This symposium will present keynotes and case studies showcasing the current technology advances that assist with optimising the extraction and treatments processes through detailed investigation, assessment, modelling and monitoring of the resource and its physical and chemical properties.	Jill Terry (BHP) jillian.terry@bhpbilliton.com Dale Sims (Dale Sims Consulting) dalesims@tpg.com.au Chris Banasik geoban@bipgond.com
4.3 Engineering geology – from underpinning our civil infrastructure to mine closure risk and mitigation	Now, more than ever, the world needs efficient infrastructure and resource solutions. Be it civil or mining, our operating environments are becoming more constrained: transportation corridors require clever solutions for infrastructure to offer greater efficiency and capacity with reduced social and environmental impact; urban areas must be re-designed to accommodate a greater population density; water storage and utilities must offer greater certainty under increased demand; emerging renewable energy sources require a new generation of affordable foundation options and mines are subject to ever increasing scrutiny from regulators, approvers and the public. To deliver on these expectations, engineering geologists must now create ground models in more challenging environments, to support the design of the next generation of high performance infrastructure. Papers in this sub-theme will showcase excellence in engineering geology through its application to the next generation of infrastructure and mining projects.	Stephen Fityus (Newcastle University) stephen.fityus@newcastle.edu.au
4.4 Geoscience and its impact on land use and productivity	With increasing global population and urbanisation leading to increased demand and competition for both living and non-living natural resources, it is important that all available information is used to inform decisions around land-use and infrastructure planning. Geoscientific and geospatial data are a fundamental dataset that should inform the planning and operation of infrastructure and land use planning on a global, national and local scale.	Adam Lewis (Geoscience Australia) Adam.Lewis@ga.gov.au Paul Dale (NSW Dept. of Industry) paul.dale@industry.nsw.gov.au

Theme and Sub-Theme Champions cont.

Sub-THEME	DESCRIPTION	CHAMPIONS
4.4.1 <i>Understanding the Surface</i>	<p>Surface landforms, soils, water availability and consequently, effective use of these natural resources are fundamentally controlled by subsurface geology. With new and developing technologies, we are able to more accurately and efficiently map and characterise the composition and nature of the surface of the planet. This session will feature recent advances in the application of remote sensing technologies in geology, geography, environmental science and agriculture, including Digital Earth Australia and its applications; the use of remote sensing to map surface chemistry; applications of advances in Lidar capture; interferometric SAR studies; and the monitoring, attribution and projection of land surface changes.</p>	<p>Trevor Dhu (Geoscience Australia) Trevor.Dhu@ga.gov.au</p> <p>Simon Costello (Geoscience Australia) Simon.Costello@ga.gov.au</p>
4.4.2 <i>The Geoscience of Where</i>	<p>The science of accurately measuring and understanding the temporal variation of the shape and orientation of the Earth and features on Earth, and the associated technologies used to understand the globe and creatively structure information according to location, are driving innovation and productivity across society. In the 21st century, new technologies and techniques allow us to measure Earth's properties with unprecedented accuracy and precision, opening up new applications in this field. This session will include presentations on the science and applications of geodesy, including cutting edge developments in positioning and implementation of a dynamic datum; advances in the way Geospatial Information is spatially referenced to the Earth through discrete global gridding systems; and developments in geospatial and positioning infrastructures.</p>	<p>Gary Johnston (Geoscience Australia) Gary.Johnston@ga.gov.au</p> <p>Simon Costello (Geoscience Australia) Simon.Costello@ga.gov.au</p>
4.5 Exploration technology: future trends and adoption challenges	<p>Technology has already had a critical role to play in minerals exploration and, as the industries efforts shift to undercover exploration, existing technologies need to evolve and new approaches need to develop. Ranging from drilling techniques to sensors and data analytics, in this sub-theme we will showcase new technologies under development and being introduced, as well as exploring the challenges and industry change required for adoption into the exploration life cycle to occur.</p>	<p>Michelle Carey (IMDEX Ltd) michelle.carey@imdexlimited.com</p> <p>Caroline Tiddy (University of South Australia) caroline.tiddy@unisa.edu.au</p> <p>Kevin Cassidy (Barerock Geological Services) barerock@iinet.net.au</p>
4.6 Mathematics, modelling, AI, robotics and machine learning applied to the acquisition and interpretation of large or complex geoscience data sets	<p>Automation in the resources industry is being driven by a need for increased safety, efficiency and productivity, as well as reducing negative environmental impacts. This session will present recent advances in automation for the geosciences as well as overviews of the current state of research and development in this field.</p> <p>Areas of interest will include:</p> <ul style="list-style-type: none"> • Autonomous mining, haulage and drilling • Managing large and complex geoscientific digital datasets and physical collections • Interpreting large and complex geoscientific data sets (eg. using spatial statistics, machine learning, complex systems, fractal methods) • Improved 3D geology modelling software: more geologically realistic, faster to generate, better integration of data • Understanding uncertainty in predictive geosciences 	<p>June Hill (CSIRO) june.hill@csiro.au</p> <p>Gavin Yeates (Gavin Yeates Consulting) gavin@gavinyeates.com</p> <p>Dale Sims (Dale Sims Consulting) dalesims@tpg.com.au</p> <p>Angela Riganti (Geological Survey of Western Australia) angela.riganti@dmirs.wa.gov.au</p>

Theme and Sub-Theme Champions cont.

5. BEYOND THE ROCKS – GEOSCIENCE IN OUR SOCIETY: CURRENT APPLICATION AND FUTURE TRENDS		Dr Anna Littleboy annalittleboy1@gmail.com
Sub-THEME	DESCRIPTION	CHAMPIONS
5.1 <i>Geology in Society: geotourism and geoheritage</i>	Geology has shaped our external environment and our history. Cavers, mountain bike riders, walkers or naturalists — geology is important to us all. Unique and sensitive ecosystems arise around geological features, and geological resources have determined where societies grow and the occupations they have had over time. This sub-theme will explore the interplay between geology and contemporary societal activity such as tourism, nature conservation and stewardship of our natural and industrial heritage. It will consider the impact that digital transformation is having on the ability to understand and visualise our planet. In this way, the sub-theme will explore the past, present and future relationships between people and the rocks beneath their feet.	Angus Robinson (Leisure Solutions) angus@leisuresolutions.com.au Margaret Brocx m.brocx@iinet.net.au
5.2 <i>Landforms and Lifeforms: the many applications of geomorphology</i>	Traditionally people look at landforms to assess an organism's immediate physical habitat, but their influence goes much further. Catchment-wide features, megaflood remnants, and post-Miocene tectonic activity have relevance to day-to-day land management decisions such as culvert size, park infrastructure placement and why some parts of land are more vulnerable to gullying than others.	Gresley Wakelin-King (Wakelin Associates Pty Ltd) gresley@wakelinassociates.com.au
5.3 <i>Geoscience, Education and Professional Development</i>	Geoscience underpins so much of modern society — from the production of raw minerals, to the quality of soils and the nature landscape, through to the stability of major infrastructure and the storage of water and energy resources. How are we developing the geoscientific skills needed to understand these relationships and enable society to use them appropriately, particularly in the face of reducing take up of science, technology, engineering and maths at high school levels and the gender inequity often faced in the biophysical sciences? Drawing on the outcomes of the 6th conference of the Australian Geoscience Educators Network (AUGEN), this sub-theme will explore the development of a strong and lasting interest in the Geosciences.	Kelsie Dadd (AUGEN) kelsiedadd@gmail.com Leslie D'Almberg (AUGEN) lesliedalmberg@gmail.com Greg McNamara (Geoscience Education and Outreach Services) geoservices@geoed.com.au
5.4 <i>Geoscience Advocacy: thought leadership from geoscience</i>	Geoscientists are involved in solving the major challenges of today — challenges for which there are no simple solutions, where scientific inquiry does not provide all the answers and where there are multiple perceptions of “good” and “bad” outcomes. Geoscience Advocacy will explore how geoscientists provide balanced and credible information on complex topics into public debate. This includes consideration of the fine line between expertise and value-based judgement. Ethical considerations in Geoscience practice, best practice professional approaches to work that affects the community and environment, and the role of corporate social responsibility will be considered. The UNCOVER initiative and the Decadal Geoscience Plan will be used as a case study in Geoscience driving long term strategy.	Anna Littleboy (CSIRO) annalittleboy1@gmail.com

Call for Abstracts

You are invited to submit an abstract for the AGCC 2018 scientific program via the AGCC 2018 **submission portal**.

The online submission of abstract opened on 14 October 2018 and will close on 16 June 2018.

Abstract 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 Symposia conveners.

Publications

The AGCC 2018 will publish standard abstracts electronically at the time of the event, but will not publish papers presented. Symposium conveners and groups wishing to publish papers presented at the Convention are free to enter independently into agreements with publishing houses.

PROFESSIONAL DEVELOPMENT WORKSHOPS

AGCC 2018 will host a number of professional development workshops over the two days immediately before the start of the Convention (Saturday 13 and Sunday 14 October) and for the day after the main event (Friday 19 October). A list of the workshops offered is presented below, and additional information (e.g. venue) will be added on the website, www.agcc.org.au/workshops, as it becomes available.

Registration in advance is required for all workshops, and fees will apply. Most workshops have limits on the minimum and maximum number of participants, and may require attendees to bring their own laptop. These and other details will be made available on the website as they are finalised, and will be released in the Third Circular (May 2018), but register early to avoid missing out!

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

Registration of Expressions Of Interest (EOI) in the workshops is now open.

All costs quoted are in Australian Dollars (AU\$) and include 10% GST.



The Amphitheatre in the Hallett Cove Conservation Park. Image courtesy of Carmen Krapf, GSSA.

PRE-CONVENTION WORKSHOPS

WK 1 - Geoscientist to data scientist

Presenter	Dr Sophie Hancock
Contact email	sophie@corehub.com.au
Organisation	CORE innovation hub
Date(s)	Saturday 13th - Sunday 14th October
Times	8am - 5pm
Description	The CORE Skills "Geoscience to Data Science" 2-day leaders course is designed to meet the needs of industry leaders using problem-based learning. Making informed, rapid decisions is the ultimate power for an organisation. Resources-sector specific, quickly deliverable education solutions are needed to prepare leaders for the changing work of their teams: smarter lifelong workplace learning for agile talent. Upon completing the course, leaders will be able to describe the impact of the digital world on you and your people, discuss the impact of the digital disruption in the resources sector, describe the opportunities digital technologies will make in creating safer workplaces and identify the Industry 4.0 concepts driving change.
Size (min-max)	20 - 30
Cost	TBA

WK 2 - Interpretation of aeromagnetic data

Presenter	Dr David Isles
Contact email	disles@redgatevista.com.au
Organisation	David Isles
Date(s)	Saturday 13th - Sunday 14th October
Times	8.30am - 5.30pm
Description	This mini-workshop is designed to cover all the basics underpinning geological interpretation of aeromagnetic data and includes 'hands-on' exercises using modern exploration datasets. It is suitable for both new graduate geologists and explorers who wish to get a feel for the process of aeromag-geology integration.
Size (min-max)	20 - 25/ 30 TBC
Cost	TBA

WK 3 - Leapfrog 3D modelling

Presenter	Dale Sims
Contact email	dalesims@tpg.com.au
Organisation	Dale Sims Consulting
Date(s)	Saturday 13th - Sunday 14th October
Times	9am - 5pm
Description	Introduction to Leapfrog 3D modelling software. This workshop aims to enhance attendees' data analysis and communication skills through the application of Leapfrog Geo, an industry-leading 3D modelling and communication package. The hands-on training will include a major overview of software functionality on a training dataset, then will move on to attendees working up a number of real-world datasets. There will be a strong focus on relaying findings and understanding to peers using the software during the course. <i>Attendees will need their own laptop.</i>
Size (min-max)	15
Cost	TBA

WK 4 - Geophysical inversion to estimate cover-thickness: new approaches – new codes	
Presenter	Dr Karol Czarnota
Contact email	Karol.Czarnota@ga.gov.au
Organisation	Geoscience Australia
Date(s)	Saturday 13th - Sunday 14th October
Times	9am - 4pm
Description	As part of the Australian Government's Exploring for the Future programme the aim of this two-day workshop is to provide an overview and hands-on experience in applying robust inversion tools to estimate cover-thickness using airborne-electromagnetic, magnetic, magnetotelluric (MT) and passive seismic datasets. Each technique will be the focus of a 1-hour lecture and 2-hour practical exercises. Participants will be provided with an instruction manual, open source codes (many of which have been developed at GA and implement trans-dimensional inversion) and worked examples in packaged datasets. <i>Attendees will need their own laptop.</i>
Size (min-max)	40 - 100
Cost	TBA
WK 5 - Principles of mining grade control	
Presenter	Dr Bill Shaw
Contact email	Bill.Shaw@orecontrol.com
Organisation	Ore Control
Date(s)	Saturday 13th - Sunday 14th October
Times	9am - 4pm
Description	<p>This interactive workshop was first presented in August 1991. It draws on many sources, years of deep, practical knowledge and examples from the participants' own experience. The approach used is still unique and requires participation and sharing. The dynamic experience of actively listening, critically thinking and robustly defending ideas provides a sound pathway to developing a broader knowledge base, new skills and an active support network.</p> <p>Theoretical content covered includes the principles behind: geological data collection, sampling theory, geostatistics, the economic basis for cut-off grades, defining the ore blocks, control of ore and waste mining, stockpile management and reconciliation.</p> <p>Note that this two-day format relies on interaction by participants from a number of mines with different styles (open pit and underground) and different commodities (gold, iron, copper, etc.). Thus every workshop is different.</p>
Size (min-max)	15 - 40
Cost	TBA



View west from Granite Island. Image courtesy of Leanne Gunther.

WK 6 - Surface processes modelling – Badlands	
Presenter	Tristan Salles, Xuesong Ding, Sara Moron-Polanco
Contact email	tristan.salles@sydney.edu.au
Organisation	University of Sydney
Date(s)	Saturday 13th October
Times	9am - 4pm
Description	The workshop aims to introduce those interested in landscape evolution and source-to-sink problems to a new open-source code: Badlands. Note that you do not have to be a seasoned modeller to participate. Geomorphologists and sedimentologists interested in testing conceptual models based on field observations are welcome! Basin and Landscape Dynamics (aka Badlands) is a landscape evolution model, built to simulate topography development at various space and time scales. The model is capable of simulating hillslope processes, fluvial incision, spatially and temporally varying geodynamic and climatic forces and the development of stratal architectures. <i>Attendees will need their own laptop. Workshop 7 follows on from this workshop.</i>
Size (min-max)	15 - 21
Cost	TBA
WK 7 - Introduction to numerical geodynamic modeling using Underworld	
Presenter	Romain Beucher and Julian Giordani
Contact email	romain.beucher@unimelb.edu.au
Organisation	University of Melbourne
Date(s)	Sunday 14th October
Times	TBA
Description	The workshop will present a range of models from different geodynamic context (rifting, subduction, collision). It will give an introduction to the simplified Python interface. We will reduce the amount of technical requirements to a minimum and will essentially focus on geological applications. There are also possibilities to explore coupling with surface processes model such as Badlands, developed by Tristan Salles and the University of Sydney's team. <i>Attendees will need their own laptop. This workshop follows on from Workshop 6.</i>
Size (min-max)	20 - 21
Cost	TBA



Seismic Survey in the Cooper Basin. Image courtesy of Dr Steve Mackie, Geosim Consulting.

WK 8 - Iron Oxide Copper Gold deposits	
Presenter	Dr Peter Pollard
Contact email	peter@peterpollard.com
Organisation	Peter Pollard Consulting
Date(s)	Sunday 14th October
Times	9am - 4pm
Description	This course aims to provide a thorough introduction to IOCG deposits and their geological environments through a hands-on look at a variety of deposits illustrated by suites of hand specimens. Participants are also updated on the latest ideas on ore genesis based on studies of the Cu–Au deposits, as well as the implications for exploration.
Size (min-max)	20 - 30
Cost	TBA
WK 9 - Geotourism for Geoscientists	
Presenter	Professor Ross Dowling OAM, and Angus M Robinson FAusIMM (CP)
Contact email	angus@leisuresolutions.com.au
Organisation	Geotourism Standing Committee of the Geological Society of Australia
Date(s)	Sunday 14th October
Times	9am - 5pm
Description	The workshop will explain the philosophy of geotourism, economic outcomes, issues of regions, economic benefits versus environment protection. The workshop will also show participants how to develop a 'geotourism story' around interpretation on the holistic nature of geotourism, geotrails and geoparks based on outstanding landscapes and geology, incorporating both biodiversity and cultural characteristics (both post-European settlement and indigenous), as well as maximising the value of incorporating mining heritage (both past and present). Issues relating to seeking government approval and community engagement will also be covered. Insights about the impact of digital transformation including development of smartphone applications, website and visitor centre enhancements will also be shared.
Size (min-max)	20 - 20
Cost	TBA
WK 10 - The secrets to successful dating: robust and innovative geochronology	
Presenter	Phil Gilmore (GSNSW), Kathryn Waltenberg (GA)
Contact email	phil.gilmore@industry.nsw.gov.au
Organisation	Geological Survey of New South Wales
Date(s)	Sunday 14th October
Times	9am - 5pm
Description	This workshop will present and discuss methods, results, challenges and opportunities for the expanding use of (particularly zircon) geochronology in Australia.
Size (min-max)	40 - 180
Cost	TBA

POST-CONVENTION WORKSHOPS

WK 11 - Using GPlates for Precambrian and Paleozoic plate reconstructions

Presenter	Morgan Blades, Sheree Armistead, Alex Young
Contact email	morgan.blades@adelaide.edu.au ajy321@uowmail.edu.au sheree.armistead@adelaide.edu.au
Organisation	Adelaide University and University of Wollongong
Date(s)	Friday 19th October
Times	9am - 5pm
Description	This workshop will involve an introduction to the plate reconstruction software GPlates and will focus predominantly on how it can be used to construct deep time (i.e. Pre Pangea) plate reconstructions. The workshop will cover topics such as visualisation of geochemical and isotopic data, creating reconstructable features in GPlates, importing and visualising paleomagnetic data, manipulating plate reconstructions to better fit new data. There is a possibility for some to explore more advanced features and using the Python interface, pyGPlates, as well. <i>Attendees will need their own laptop.</i>
Size (min-max)	20 - 30
Cost	TBA

WK 12 - Introduction to Python for Geoscientists

Presenter	Nathaniel Butterworth, Madhura Killedar
Contact email	nathaniel.butterworth@sydney.edu.au
Organisation	University of Sydney
Date(s)	Friday 19th October
Times	10am - 4pm
Description	<p>Take your Geoscience data management and analysis to the next level with an introduction to Python. Python has deservedly become a popular language for scientific computing. It has all the friendly features and conveniences you would expect of a modern programming language. It boasts a rich set of libraries used and developed by Geoscientists for working with data. The Python programming language offers adaptability and versatility to the types of analyses, modelling, and workflows that Geoscientists utilise.</p> <p>In this course you will learn:</p> <ul style="list-style-type: none"> • Basic programming concepts and techniques • Syntax, control statements, and Python data types • How to use well-developed libraries (e.g. Numpy, Scipy) • Data frames and data wrangling using Pandas • Visualisation in Python using matplotlib • Machine learning strategies from the scikit-learn library <p>We will teach the course using Jupyter notebooks, which allow Python code, results, visualisations and documentation to be blended seamlessly. This platform is perfect for sharing insights with others while producing reproducible research.</p> <p>Join us for this live coding workshop where we write programs and develop workflows that you can use in your data analysis pipelines. <i>Attendees will need their own laptop.</i></p>
Size (min-max)	20 – 25 TBC
Cost	TBA

WK 13 - Assessing and communicating geological risk to non-Geologists	
Presenter	Mr Mark Berry
Contact email	mark@deriskgeomining.com
Organisation	Derisk Geomining Consultants Pty Ltd
Date(s)	Friday 19th October
Times	9am -5pm
Description	<p>Geologists provide essential technical information during all stages of exploration, feasibility, development and mine operations. Much of this information is used by mining engineers, metallurgists, environmental staff, operations staff and mine management for planning and operations management. But almost everything geologists deliver to these staff are estimates and interpretations rather than FACTS; so how do geologists convey the fundamental uncertainties associated with their estimates and interpretations to non-geologists?</p> <p>This workshop will review the sources of geological uncertainty that feed into exploration, mineral resource and ore reserve estimates, mine planning, scheduling, optimisation and operations – with implications from pit to port. Workshop modules include:</p> <ul style="list-style-type: none"> • Risks and opportunities linked to the provision of geological information • Conventional risk assessment and management systems • Contributions to geological uncertainty • Approaches for identifying, documenting and communicating geological uncertainty to non-geologists <p>Case studies emphasising the importance of assessing geological uncertainty linked to mineral resource and ore reserve estimates (including mining, processing, waste disposal and transport) are used to emphasise the importance of effectively managing geological risk. Group interaction and exercises are also used to illustrate and reinforce workshop concepts.</p>
Size (min-max)	20 - 30
Cost	TBA
WK 14 - Social responsibility in Geoscience education	
Presenter	Dr Mike Katz
Contact email	mikekatz320@gmail.com
Organisation	Mineral Development Consultant Former Director Key Centre for Mines, UNSW, Sydney, Australia
Date(s)	Friday 19th October
Times	9am - 12.30pm
Description	<p>The workshop will discuss the needs and means to introduce social responsibility programs into the universities' Geosciences study curriculum. These programs aim to make students aware that this knowledge is not only a technical pathway to professional qualifications but also encourages and strengthens the capability of the students to engage with society — as after graduation and in the course of their employment, these geoscientists are often the first point of contact with communities.</p>
Size (min-max)	15 - 40
Cost	TBA

WK 15 - Unrealised billions: deposits hidden in legacy data	
Presenter	AGIA – Australian Geoscience Information Association Inc.
Contact email	president@agia.org.au
Date(s)	Friday 19th October
Times	10am - 3pm
Description	<p>Many AGIA members have a long and current history of working with legacy data in the Geosciences and while there is a mesmerising attraction to computerised data today, there are unrealised “billion” bits of information hidden in legacy data.</p> <p>As stated in a white paper by American Industry of Professional Geoscientists (2010), “These type(s) of data repositories save the private sector millions of dollars in exploratory costs each year. Review of properly catalogued and archived rock core allows consultants, academia, and other public agency resource specialists and scientists to better understand the subsurface conditions at a site by using previously obtained resource information and reducing the need to obtain costly and perhaps redundant samples”.</p> <p>AGIA has already received some expressions of interest from potential contributors and we look forward to sharing the experience of others with legacy data.</p>
Size (min-max)	50
Cost	TBA
WK 16 - Application of High-Resolution Seismic in mineral exploration	
Presenter	Mrs Libbi Kern
Contact email	l.kern@hiseis.com
Organisation	Hiseis
Date(s)	Friday 19th October
Times	9am - 12.30pm
Description	Seismic in hard-rock environments is becoming increasingly recognised as a cost-effective and valuable tool to resolve ambiguities in geological architecture and create better mineral system models, compressing time frames to the next phase of ore discovery. This workshop explains the process of using 3D seismic in exploration and mine planning, including case studies.
Size (min-max)	15 - 21
Cost	TBA
WK 17 - South Australia deposit showcase: 3D models with core	
Presenter	Dale Sims
Contact email	dalesims@tpg.com.au
Organisation	Dale Sims Consulting
Date(s)	Friday 19th October
Times	9am - 5pm
Description	A showcase of four key South Australian mineral deposits involving a 3D model review, followed by core inspection of both host rocks and mineralisation.
Size (min-max)	50
Cost	TBA

FIELD TRIPS

AGCC 2018 is an ideal opportunity for delegates to explore the fascinating geology of South Australia and beyond. A range of pre- and post-Convention field trips will cover different aspects of the Geosciences. A description of each tour, together with the start and end points and duration is provided in the table below. Full field trip itineraries and prices will be released in the Third Circular, due in May 2018.

Please note the following:

- All field trips will operate with the required minimum number of people and on designated dates only
- Full pre-payment in advance is required
- As the availability and schedule of the suppliers cannot be guaranteed, the organisers reserve the right to change the proposed list without prior notice



Views of the Newer Volcanics Province of western Victoria and South Australia, which will be visited as part of a pre-Convention fieldtrip. Image courtesy of Professor Ray Cas, Monash University.

PRE-CONVENTION FIELD TRIPS

FT 1 - Physical volcanology of the Mesoproterozoic Gawler Range Volcanics silicic large igneous province

Tour guide	Adjunct Professor Jocelyn McPhie
Contact email	j.mcphie@utas.edu.au
Organisation	University of Tasmania, McPhie Consulting
Duration	5 days
Dates	Wednesday 10th - Sunday 14th October 2018
Description	The Gawler Range Volcanics (GRV) are the volcanic part of the Mesoproterozoic Gawler silicic large igneous province (SLIP), and are very well exposed in the northern Eyre Peninsula. We will complete a north-south traverse through the Gawler Range Volcanics, examining the best exposures of diverse lavas and pyroclastic facies in the lower GRV, and two of the three gigantic felsic lavas (each >500 km ³) in the upper GRV. We will also examine outcrops of the Hiltaba Suite granites which form the intrusive part of the Gawler SLIP. We will travel in 4WD vehicles and enjoy a fully catered camp each night under the stars. Most outcrops are within easy walking distance from tracks, and we will complete one or two 2-3 km-long walking traverses along ridges and creeks.
Size (min-max)	10 - 15
Cost	\$1200-\$1500 (indicative, final cost TBC)

FT 2 - Volcanoes, eruption processes and potential future hazards from the still active Newer Volcanics Province of western Victoria and South Australia — Melbourne to Adelaide road trip

Tour guides	Emeritus Professor Ray Cas and Dr. Jozua van Otterloo
Contact email	ray.cas@monash.edu
Organisation	Monash University
Duration	4 days
Dates	Thursday 11th - Sunday 14th October 2018
Description	This fieldtrip will examine the geodynamics and the physical volcanology of the eruptions that produced the still active Newer Volcanics Province in western Victoria and South Australia. The tour is a road trip starting in Melbourne and concluding in Adelaide, and will include a detour to the iconic Great Ocean Road.
Size (min-max)	15 - 20
Cost	TBA

FT 3 - Broken Hill – key outcrops, ideas and discussion

Tour guides	Jared Broome, Noel Carroll and Shelley Mills
Contact email	Jared.Broome@perilya.com.au
Organisation	Perilya Ltd
Duration	3.5 days
Dates	Thursday 11th - Sunday 14th October 2018
Description	This is a field-based review of key outcrops within the public access areas and mine leases of Broken Hill. The review will cover the stratigraphy, structure, mineralisation and mining interests of the Broken Hill Line of Lode through outcrop, hand specimens and drill core inspections. Open and diverse discussion will be encouraged with attendees being exposed to emerging ideas around this significant mineralisation system.
Size (min-max)	20 - 30
Cost	TBA

SYN-CONVENTION FIELD TRIPS

FT 4 - Hallett Cove geological wake-up call

Tour guides	Dr Carmen Krapf and Dr Stacey McAvaney
Contact email	Carmen.Krapf@sa.gov.au Stacey.McAvaney@sa.gov.au
Organisation	Geological Survey of South Australia
Duration	4 hours: 6am–10am
Date	Wednesday 17th October 2018
Description	Visit Hallett Cove Conservation Park, situated along the coastline of Adelaide's southern suburbs, and enjoy the sunrise on an early morning walk along the 2 km-long Hallett Cove Geological Trail. This geological monument preserves Neoproterozoic marine and coastal sediments of the Adelaide Geosyncline folded during the Cambro–Ordovician Delamerian Orogeny, as well as evidence of glaciation during the Permian Period, including striated glacial pavements at Black Cliff, glacial lacustrine sediments at the Sugarloaf and erratics transported from southern Fleurieu Peninsula.
Size (min-max)	20 - 30
Cost	\$60, including breakfast snack

FT 5 - Tonsley Core Reference Library and Data Metallogenica

Tour guides	Georgina Gordon
Contact email	Georgina.Gordon@sa.gov.au
Organisation	Geological Survey of South Australia
Duration	1.5 hrs
Dates	Wednesday 17th October 2018
Description	Lunch-time tour of the recently opened, state-of-the-art Tonsley Core Reference Library and AMIRA International's Data Metallogenica collection.
Size (max)	40
Cost	TBA

FT 6 - Footsteps of Mawson

Tour guide	Associate Professor Jim Jago
Contact email	Jim.Jago@unisa.edu.au
Organisation	University of South Australia
Duration	1.5 hrs
Dates	Wednesday 17th October 2018 Thursday 18th October 2018
Description	This walking tour visits the Mawson Gallery at the South Australian Museum and the Mawson Collection at University of Adelaide. Learn more about the significant contribution of arguably Australia's most successful and famous geologist.
Size (min-max)	15 - 30 each day
Cost	Free

SYN-CONVENTION FIELD TRIPS cont.

FT 7 - North Terrace Building Stones

Tour guides	Professor Barry Cooper
Contact email	Barry.Cooper@unisa.edu.au
Organisation	University of South Australia
Duration	1.5 hrs
Dates	Wednesday 17th October 2018 Thursday 18th October 2018
Description	Following the recent release of the self-guided geological tour brochure (http://www.sa.gsa.org.au/Field_Guides.html), this fieldtrip provides a great insight into a range of geology from around the world, right on the doorstep of the convention venue.
Size (min-max)	15 - 30 each day
Cost	Free



The 1890's wooden headframe erected over the Browne Shaft at the Broken Hill Junction Mine — one of the sites that will be visited during the pre-Convention Broken Hill fieldtrip. Photo courtesy of Jared Broome, Perilya Ltd.

POST-CONVENTION FIELD TRIPS

FT 8 - Terroir of McLaren Vale

Tour guides	TBA
Contact email	TBA
Organisation	TBA
Duration	1 day
Date	Friday 19th October 2018
Description	This trip will travel to wineries in the McLaren Vale Wine Region to study aspects of the terroir of the various vineyards. We will be talking to the winemakers at each location to discuss the important contributors to terroir: geology, regolith, soil, altitude and microclimate.
Size (min-max)	20 - 30
Cost	TBA

FT 9 - Paleozoic Tasmanides geology in western Victoria: Stawell Gold and Stavelly Arc Copper — Adelaide to Melbourne road trip

Tour guide	David Taylor
Contact email	David.Taylor@ecodev.vic.gov.au
Organisation	Geological Survey of Victoria
Duration	3 days
Dates	Friday 19th - Sunday 21st October 2018
Description	This trip will showcase the geological mapping done by Geological Survey in Victoria in last few years and some of the interesting new exploration work in a region of significant mineral potential. Areas visited include Halls Gap, Stawell, Ararat, Moyston and Stavelly.
Size (min-max)	15 - 20
Cost	TBA

FT 10 - Naracoorte World Heritage Caves – their geology and paleontology

Tour guide	Ian Lewis
Contact email	Ian.Lewis2@sa.gov.au
Duration	2 days
Dates	Friday 19th - Saturday 20th October 2018
Description	This 2 day field trip will investigate the geology and paleontology of the World Heritage Naracoorte cave system with specialist technical tours of this speleological wonderland.
Size (min-max)	20 - 30
Cost	TBA

FT 11 - Hot rocks, ice ages and the rise of complex life

Tour guide	Professor Jim Gehling
Contact email	jim.gehling@samuseum.sa.gov.au
Organisation	South Australian Museum, University of Adelaide
Duration	5 days
Dates	Friday 19th - Tuesday 23rd October 2018
Description	This tour will visit world-heritage quality exposures of Ediacaran, Tonian and Cryogenian stratigraphy, as well as examining the general Arkaroola and Northern Flinders National Park geology via 4WD bus over 5 days. This tour will satisfy all geoscientific interest with a very unique and refreshing approach to this important stage in earth life development.
Size (min-max)	10 - 15
Cost	TBA

BUSINESS MEETINGS

The AGCC Organising Committee invites Member Organisations and affiliated bodies, Specialist Groups and other Geoscience organisations to hold their Business meetings at the Convention, to take advantage of the synergies offered by this large event. Submissions for all Business Meetings can be made through the **online proposal system** on our website. The Business Meetings coordinators require information on the venue capacity, the meeting duration and additional information, including audio-visual or catering needs. Some charges may apply, please visit the website for further details.

SPONSORSHIP OPPORTUNITIES

AGCC 2018 is delighted to acknowledge our Patron Sponsor Geoscience Australia.

Sponsorship of AGCC 2018 provides an ideal opportunity to showcase your company or organisation's involvement in the Geoscience sector and highlight your achievements, specific interests and service capabilities.

Sponsors of AGCC 2018 can expect to:

- Raise or enhance their profile across the geological and resources sectors throughout Australia and the Asia Pacific Region
- Create direct links to leaders throughout the geological, exploration and resources sectors
- Promote to international organisations, most notably from Asia Pacific nations
- Achieve exposure to consumers of geological, exploration, mining and energy products and technical services.

Sponsorship packages are still available and can be tailored to your company needs, to maximise the return on your investment and your level of exposure. To download the Partnership Opportunities document, please click [here](#).

AGCC 2018 welcomes discussion about any additional activities or mechanisms which your organisation would prefer to demonstrate your support.

GeoEXPO OPEN — SECURE YOUR POSITION NOW!

The Exhibition Subcommittee has commenced booth sales in the GeoEXPO. Positioned in Hall H at the Adelaide Convention Centre, the GeoEXPO will be home to over 80 displays showcasing products and services of interest to the greater Geoscience community. It will feature a large central catering area, the GeoHUB, with refreshments, device charging facilities, casual seating, information providers and more.

For a limited time only, a select number of booths are available at a 10% discount fee, rewarding proactive organisations who book early. Closing date of 31 March 2018, or until all of the designated discount booths are sold.

To view the floor plan, showing the locations of the discounted booths in yellow, costing table and to book immediately, please click [here](#).

The AGCC 2018 Organising Committee has adopted an Exhibitor Loyalty Plan, effective as of AGCC 2022, for companies whose business operations entail regular attendance at successive Geoscience conventions. The program is essentially based on a points system whereby previous exhibitors and conference sponsors get higher priority than new exhibitors. The program is described [here](#).

For all sponsor and exhibition enquiries please contact Jess Tuffley at CCM (Convention Secretariat):

E: sponsor@ccm.com.au

T: +61 7 3368 2644

EARLY CAREER GEOSCIENTISTS AND VOLUNTEERS

Genna McDonagh is coordinating the volunteer and early career delegate programs, to provide coordination and opportunities for innovative ways to connect with the Convention. These programs will ensure that we address broad social themes that are important now to all professionals in academia, industry, consulting and government. If you are passionate about diversity, representation, networking, STEM or just making a difference, please email her at genna.mcdonagh@gmail.com.

AGCC 2018 will include a volunteer program designed to:

- support the organisers and delegates before and during the conference
- facilitate participation by students and retirees involved in the Geosciences
- provide exposure and networking opportunities to students

A call for expressions of interest to volunteer will be made in August 2018, followed by an invitation to apply for registration as a volunteer. This will be for students currently registered for Geoscience and related courses at educational institutions, and for retired Geoscience practitioners.

At that time, further information will be provided regarding:

- full requirements to qualify
- details of the program/schedule
- the tasks, duties and rules of conduct
- details of participation in meetings and seminars
- working conditions and benefits
- training requirements

SOCIAL MEDIA PROGRAM

AGCC 2018 makes use of all mainstream social media platforms: **LinkedIn**, **Facebook**, **Twitter** and **Instagram**. You are encouraged to follow our social media platforms and join the conversations by using #AGCC2018ADELAIDE.

AGCC 2018 PARTNERS

The legal entity responsible for AGCC 2018 is the Australian Geoscience Council Inc. (AGC), the Council of Earth Science Societies in Australia and the peak body for Geoscience. It represents eight major Australian Geoscientific organisations with a total membership exceeding 8,000 individuals:

- Association of Applied Geochemists
- Australian Geoscience Information Association
- Australian Institute of Geoscientists
- Australasian Institute of Mining and Metallurgy
- International Association of Hydrogeologists Australia
- Australian Society of Exploration Geophysicists
- Geological Society of Australia
- Petroleum Exploration Society of Australia

All AGC Member Organisations are involved in the organisation of the AGCC 2018, and have invested in underwriting the costs of this event.

Carillon Conference Management has been appointed as the Convention Secretariat for AGCC 2018. Please direct all enquiries to:

Carillon Conference Management admin@ccm.com.au

T: +61 7 3368 2644

PO Box 177

Red Hill QLD 4059 Australia

GENERAL INFORMATION

Visas

Unless you are a citizen of Australia or New Zealand, you will need to apply for and obtain a visa prior to your journey to Australia.

For full information on Australian visas, please visit the Australian Government Department of Immigration and Border Protection website: www.border.gov.au

The Convention will provide a letter of invitation for visa purposes to delegates who have paid the full registration fee and are from those countries that need an invitation letter to enter Australia.

Accommodation

Whatever your accommodation budget, there are plenty of hotels to choose from in Adelaide and regionally in South Australia if you plan to stay on for some sightseeing.

Along the coast and throughout South Australia you will find a range of accommodation to suit single travellers, couples or families. Please visit www.southaustralia.com/where-to-stay for more information.

AGCC 2018 has blocked rooms in a range of hotels, which will be made available to delegates at the time of registration. Visit www.agcc.org.au/accommodation to find out more.

Adelaide — Host city to AGCC 2018

Adelaide combines exceptional food and wine, art, shopping, a bustling bar scene and world-class events. The city is recognised as a great wine capital of the world. No matter what season you visit, Adelaide and its regions allow you to sample the best of Australia.

One of the many great things about Adelaide is its accessibility. One minute you're in a bustling, exciting city, and then in 20 minutes time you can be relaxing in the sun on some of the world's most beautiful beaches.

Bustling bar scene

When the liquor licensing laws changed in 2013, the small bar scene said “thank you very much” and exploded — mostly in the small laneway quarter around Leigh St, Peel St and Gilbert Place. Today the precinct is a pocket rocket of inner city personality. Industrial spaces, quirky facades and inner-city breweries — it's all here in Adelaide.

Nightlife

It's an exciting time to hit the restaurant scene in Adelaide with many high-end, experimental and eclectic offerings opening their doors to eager customers. These include the South African themed Africola, city-fringe fine-dining Magill Estate and Orana (awarded 2017 Restaurant of the Year by Gourmet Traveller), where the degustation menu concentrates on native flavours. Sean Connolly and Jamie Oliver have also opened eateries in Adelaide with a fresh produce focus and strong architectural flair. Your top things to do in Adelaide should certainly include visiting one of these great restaurants.

Suburban flair

Just outside the city, in the eastern suburbs, you'll find Norwood. Less than three kilometres from the city, it's easy to catch the bus or head through the parklands for a scenic stroll as you make your way to the shopping and cafe strip — The Parade. Norwood is a leading destination for alfresco dining. Indulge your shopping habit with homewares and furniture as well as unique labels and cutting-edge hair and beauty.

Travel ten minutes south of the city and you'll be in Hyde Park. Spend the morning walking along King William Road browsing the stores before stopping off and grabbing a coffee. From boutique fashion labels to French patisseries — this is the place for those of discerning taste.

Fun at the beach

Most beaches are less than 30 minutes from the city and Adelaide's warm climate means you can enjoy them practically all year round. Head north for some family-friendly beaches with attractions for the kids. Head south if you're more of a surfer and looking for those waves or for those spectacular views framed by steep cliffs. Head to any **metropolitan beach in Adelaide** and you won't be disappointed.

Catch the tram from Adelaide to historic Glenelg, just 12 kilometres from the city centre. Browse the shops and cafés on Jetty Road and at Holdfast Shores Marina. Mosey through Moseley Square and along the jetty as you overlook the water. Picnic under the pine trees and watch the beach-goers stroll by. Brought the kids? No worries — there's an adventure park called the Beach house to keep them occupied for hours.

Alternatively, head down to Henley Beach. There's a great beachside atmosphere in the square with cafes, pubs and ice-cream shops available to help you through those hot summer days. Its wide sandy beaches and gentle waves are perfect for the kids looking to play a game of beach cricket or collect some shells.

Family-friendly

Adelaide's laid-back attitude makes it the perfect place to bring the family. With plenty of activities to keep the little ones happy, no doubt parents will be happy too.

From the hundreds of metropolitan beaches to the stunning Botanic Gardens and parks, there's plenty of space for the kids to run around and burn off some of that energy! Does your little one have a keen interest in animals? Take them to Adelaide Zoo. There they can meet **Wang Wang and Fu Ni** — the Southern Hemisphere's only breeding pair of Giant Pandas. Or they can listen to the roars of the tigers and lions, or see if they can reach as tall as the giraffes. If they have an inquisitive mind, head to the South Australian Museum where kids are encouraged to get hands-on and learn about the world around us in an interactive way.

Adelaide Oval

South Australia's historic **Adelaide Oval** has been the site of many historic cricket matches. Legendary Sir Donald Bradman made Adelaide his home and graced the hallowed turf of the oval on many occasions. The sporting great is honoured here with a museum display showcasing his career in a state-of-the-art, purpose-built museum. The Bradman Collection lives in the newly-built Riverbank Stand.

Considered one of the most attractive grounds in the world, Adelaide Oval has undergone a significant makeover, with new southern and eastern stands and a pedestrian plaza outside the ground. The oval now seats more than 50,000 spectators and is Adelaide's home of AFL as well as cricket. When you're looking for things to do in Adelaide, a trip to Adelaide Oval is a must.

For more information, please visit www.southaustralia.com.



Barossa Wine Region. Image courtesy of the Adelaide Convention Bureau.



Adelaide Convention Centre

VENUE — ADELAIDE CONVENTION CENTRE

The Adelaide Convention Centre is conveniently located in the heart of the city centre and nestled within the beauty of the Riverbank Precinct, surrounded by parklands and the River Torrens.

Close to the medical hub, entertainment, cultural and sport precincts, the Centre is a short walk to international and boutique hotels and accommodation. Public transport, the Adelaide Railway Station and a taxi ramp are on our doorstep. Please visit www.adelaidecc.com.au for more information.

The international airport is just seven kilometres from the Centre, easily and economically accessible by taxi.

Address: North Terrace, Adelaide SA 5000



AGGC 2018 CIRCULARS

General distribution of this and subsequent Circulars for the AGCC 2018 will be by email. Please, feel free to forward circulars to interested friends and colleagues. All circulars are available online via www.agcc.org.au/circular

AGCC 2018 CONTACT DETAILS

AGCC 2018 Secretariat | agcc@ccm.com.au | +61 7 3368 2644

Please, complete the 'Join the mailing list' form when you visit the www.agcc.org.au — you will then automatically receive updates and news.

Seagrass ball next to a block of Cambrian Heatherdale Shale of the Stansbury Basin (Adelaide Geosyncline) at Carrickalinga, Fleurieu Peninsula. Image courtesy of Carmen Krapf, GSSA.

We look forward to meeting up with you in Adelaide



AGCC Australian Geoscience
Council **Convention**

BIG ISSUES AND IDEAS IN GEOSCIENCE

14–18 OCTOBER 2018 | Earth Science Week

Adelaide Convention Centre