Abstract

Deadline: 1 March 2013

Full details available on website from late August 2012

Presentation

Oral and poster

Registration

Early bird registration cut off: 1 April 2013

Expressions of interest to register can be sent to futores@jcu.edu.au

Short courses and field trips

The conference invites proposals for short courses, workshops and field trips.

A list of courses and trips will be provided in the 2nd Circular

Exhibition

The conference will host an exhibition. We welcome companies and organisations to participate.

Expressions of interest: futores@jcu.edu.au

Sponsors

The conference committee would like to invite sponsors to support the meeting. Expressions of interest: futores@jcu.edu.au

Conference location:

Jupiters Townsville Hotel Sir Leslie Thiess Drive Townsville QLD 4810 Australia

Tel: +61-7-4722 2333

Website

www.jcu.edu.au/futores

Conference Host

EGRU (Economic Geology Research Unit), James Cook University Townsville QLD 4811 Australia

Conference Organising Committee

Zhaoshan Chang Christa Placzek Tom Blenkinsop Eric Roberts Judy Botting

Kaylene Camuti

Jason Beckton

Contact

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Future understanding of tectonics, ores, resources, environment and sustainability

Townsville, Australia 2nd - 5th June 2013

FIRST CIRCULAR

Themes

- Noel White Symposium on ore deposits: current understanding and future directions in research and exploration
- **Tectonics Symposium**
- Basins and Energy Symposium
- Mineral Systems Approach to GIS-based Prospectivity Mapping Symposium
- Environment Preservation Symposium

Welcome

The FUTORES (Future and Understanding of Tectonics, Ores, Resources, Environment and Sustainability) conference will be held in tropical Townsville, Australia, on 2-5 June 2013. FUTORES will address all issues related to sustainable supply and utilisation of mineral and energy resources. The conference will have diverse themes, including a Noel White Symposium on current understanding and future directions in research and exploration of ore deposits, and concurrent symposia on the tectonic and structural setting of mineral and energy resources, basins and energy, prospectivity mapping, and environmentally sustainable earth resource exploitation. The Economic Geology Research Unit (EGRU) of James Cook University is proud to host this event and we welcome colleagues, industry partners, and students to attend this inspiring and exciting conference.

FUTORES 2013 Conference themes:

Noel White Symposium on ore deposits: current understanding and future directions in research and exploration

Co-sponsors: EGRU, SEG and SGA

Conveners: Zhaoshan Chang, David Cooke and Richard Goldfarb

Exploration for mineral resources is becoming more challenging geologically, at a time when the demand for mineral resources has greatly increased and the inventory of known resources is being rapidly depleted. Future exploration will need to target resources at increasing depths below the Earth's surface. To maintain a sustainable supply of mineral resources to society, more advanced exploration techniques, and in turn improved understanding of ore deposits, are needed. This symposium, in honour of Noel White, will highlight recent developments in the exploration and understanding of major types of mineral deposits, examine the key issues and techniques critical to future exploration, and discuss the way forward. This symposium will run for 2.5 days.

Noel White is a passionate geologist and sharp thinker with rich and diverse experience in both exploration and research. He has carried out exploration for ~40 years, and was the Chief Geologist of BHP Minerals Exploration 1992-1999. After retiring from BHP, he has been the director for several companies, and has provided advice on conducting comprehensive exploration programs to companies and governments globally. Noel is renowned as a global authority on epithermal and porphyry deposits, with expertise that spans geology, geochemistry and geophysics. He has published numerous significant papers, guided and participated in research, co-supervised PhD students at several universities as an adjunct professor, and has informally and unselfishly advised hundreds of students and junior geologists. Noel has taught numerous short courses on mineral resources in many countries. He has served on editorial boards of top journals including Geology, Mineralium Deposita, and Journal of Geochemical Exploration. He has also served on numerous committees for international economic geology societies such as the Society of Economic Geologists (SEG) and AusIMM, and was selected as both an SEG Thayer Lindsley and International Exchange lecturer. With deep insights into what is important for both industry and academia, and never afraid to voice his opinion, Noel continues to contribute significantly to exploration geoscience and continues to be a well-respected leader in such. This symposium will honour the career of Noel White by robustly discussing the origins of, and exploration for, the world's major types of ore deposits.

Confirmed speakers:

John Thompson Industry perspectives

David Cooke, Anthony Harris Porphyry Larry Meinert Skarn

Stuart Simmons Low-and intermediate-sulfidation epithermal

Noel White Magmatic hydrothermal system

Robert Loucks Magma fertility Martin Fairclough U-bearing IOCG Jean Cline Carlin-type

Ross Large Sediment-hosted Au

Richard Goldfarb Orogenic Au Craig Hart Intrusion related Au systems

Campbell McCuaig Multi-scale structural controls on mineral systems

David Leach SEDEX/MVT

Chusi Li Magmatic Ni-Cu-PGE deposits

David Groves Summary and discussion on future directions

Tectonics Symposium

Convener: Tom Blenkinsop

This theme will address tectonics and structural geology through time from the Hadean to the present, at any scale from the microscopic to the whole earth. New results from field, experimental and numerical modelling are encouraged, as well as contributions that address the relation between tectonics, resources and sustainability.

Confirmed Speaker

Mike Sandiford

Basins and Energy Symposium

Convener: Eric Roberts

This theme will address new insights into sedimentary basins and energy resources. The need for fossil fuels and alternative energy resources is continuing to drive the re-evaluation of mature basins and increased exploration into frontier basins. This symposium will highlight recent studies in stratigraphy, palaeontology, sedimentology, as well as those focused on coal geology, petroleum geology and other emerging resources such as coal seam and shale gas, that contribute to our understanding of sedimentary basins through time and space.

Mineral Systems Approach to GIS-based Prospectivity Mapping Symposium

Convener: John Carranza

Adoption of a mineral systems approach to GIS-based mineral prospectivity mapping has been advocated and implemented in the last decade as a key to effective delineation of exploration targets. We encourage contributions describing success stories of applying the mineral systems approach as well as contributions describing innovations in the application of this approach.

Confirmed Speakers:

Ignacio Gonzalez-Alvarez Vladimir Lisitsin Franco Piraino Alok Porwal **Greg Partington**

Environment Preservation Symposium

Convener: Christa Placzek

A rapidly growing interest in minimizing the environmental impacts of the development of mineral and energy resources presents a suite of new challenges. In particular, future resource extraction will emphasize minimizing impacts on the landscape. We encourage submissions that address both broad issues of environmental and economic sustainability of the minerals and energy resources industry, as well as innovative technical approaches to extraction and closure of

operation.