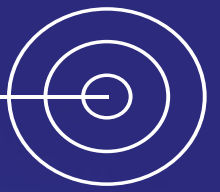


Centre for **EXPLORATION**  
**TARGETING**



# Recent Advances in Exploration Geosciences Symposium

**Wednesday 2<sup>nd</sup> & Thursday  
3<sup>rd</sup> February 2022**

**Robert Street Building Lecture Theatre, UWA**

# DAY 1

Time	Type of talk/ discussion	Name(s) - all UWA except where otherwise indicated	Title of talk
8:00	Registration		
8:30-10:30	Topic 1	Chair: Prof. Mike Dentith	<b>Emerging geophysical technologies and their application in mineral exploration</b>
8:30-9:00	Talk 1 + Discussion	Anne Tomlinson & Greg Maude (Southern Geoscience Consultants)	Using modern downhole EM to discover high-grade, narrow vein lodes in a historical gold field, Bellevue Gold Project, Western Australia
9:00-9:30	Talk 2 + Discussion	Sasha Banaszczyk & Perla Pina Varas	Interpretation of magnetotelluric and airborne electromagnetic inversions from the Proterozoic basins of the Capricorn Orogen, WA
9:30-10:00	Talk 3 + Discussion	Leon Mathews (Atlas Geophysics)	Drone Geophysics
10:00-10:30	Talk 4 + Discussion	Tom Hoskin & Shane Evans Moombarriga Geoscience	Role of MT in exploration for gold in the EGF
10:30-11:00	<b>Coffee and posters</b>		
11:00-15:00	Topic 2	Chair: Drs. Daniel Wiemer/Quentin Masurel	<b>Structural inheritance and metal superclusters</b>
11:00-11:30	Talk 1 + Discussion	Daniel Wiemer	Introduction to structural inheritance and its significance
11:30-12:00	Talk 2 + Discussion	Nico Thebaud & Quentin Masurel	Architectural control on Precambrian systems with examples from the Yilgarn and West African Craton
12:00-12:30	Talk 3 + Discussion	Daniel Wiemer	Inherited basement structures and metal superclusters in Peru
12:30-14:00	<b>Lunch and posters</b>		
14:00-14:30	Talk 4 + Discussion	Gerard Tripp (Consultant)	The importance of unconformities in controlling orogenic gold systems
14:30-15:00	Panel discussion	Panel Chair: Daniel Wiemer/ Quentin Masurel	Thebaud, Tripp, Hronsky, Begg
15:00-18:00	Topic 3	Chairs: Prof. Steffen Hagemann & Dr Walter Witt	<b>Classification of intrusion-hosted Au±Cu systems in Archean cratons: implications for exploration</b>
15:00-15:20	Talk 1 + Discussion	Steffen Hagemann	Porphyry, intrusion-related and orogenic Au systems: What is in the name? Genetic and exploration implications
15:20-15:50	<b>Coffee and posters</b>		
15:50-16:10	Talk 2 + Discussion	Walter Witt	Karari and Whirling Dervish deposits, Carosue Dam: an alkalic porphyry system in the Kurnalpi Terrane
16:10-16:30	Talk 3 + Discussion	Jordan McDivitt (Newmont)	Magmatic-hydrothermal fluid source for the Fimiston and Oroya style Au-Te mineralization at the Golden Mile
16:30-16:50	Talk 4 + Discussion	Steve Turner (Newmont)	Porphyry or intrusion-related mineral system: Boddington gold deposit
16:50-17:10	Talk 5 + Discussion	Nico Thebaud	Evolution of Au systems in Ryacian orogenic belts in West Africa
17:10-17:25	Speed talk 1	Ravi Schreefel	The role of the Gruyere intrusion in the formation of the Gruyere gold deposit
17:25-17:40	Speed talk 2	Wade Johnson (Lefroy Exploration)	Au-Cu mineralization in the Burns intrusion complex
17:40-18:00	Panel discussion	Panel Chairs: Steffen Hagemann/ Walter Witt	McDivitt, Turner, Thebaud, Schreefel, Johnson

# DAY 2

Time	Type of talk/ discussion	Name(s) - all UWA except where otherwise indicated	Title of talk
8:00	<b>Registration</b>		
8:30-10:30	<b>Topic 4</b>	<b>Chairs: Drs Brian Tattitch &amp; Chris Fisher</b>	<b>Fertility in Au-Cu systems: What does it mean? Proxies and Pitfalls!</b>
8:30-9:00	Talk 1 + Discussion	Brian Tattitch	What does "fertility" mean in Au-Cu hydrothermal systems?
9:00-9:30	Talk 2 + Discussion	Bob Loucks (Consultant and UWA Adjunct Researcher)	Understanding the storage and degassing of fertile magmas
9:30-10:00	Talk 3 + Discussion	Yongjun Lu (GSWA)	Accessory mineral chemistry, isotopes and fertility: modern and Archean perspectives
10:00-10:15	Speed talk 1	Luis Parra-Avila	Giant porphyry Cu-Au deposits: insights from zircon and apatite indicators
10:15-10:30	Speed talk 2	Chris Fisher	Apatite as a pathfinder for Au in Archean magmatic-hydrothermal systems
<b>10:30-11:00</b>	<b>Coffee and posters</b>		
<b>11:00-13:00</b>	<b>Topic 5</b>	<b>Chair: A/Prof. Tony Kemp</b>	<b>Critical Metals in a low carbon future</b>
11:00-11:05	Introduction	Tony Kemp	Overview of session
11:05-11:35	Talk 1 + Discussion	Carl Spandler (University of Adelaide)	Genesis and evolution of REE ore deposits: An Australian perspective
11:35-12:05	Talk 2 + Discussion	Marcus Sweetapple (Consultant & UWA Adjunct Researcher)	Li and pegmatites: what are the key controls
12:05-12:15	Speedtalk 1	Jason Bennett	New insights into the formation of cassiterite and associated critical commodities
12:15-12:25	Speedtalk 2	Lillian Kendall-Langley (Consultant Geoscientist RSC)	Timescales and sources of LCT pegmatites investigated by U-Pb dating and Lu-Hf isotopes
12:25-12:50	Talk 3 + Discussion	Ignacio Gonzalez-Alvarez (CSIRO)	Critical metals in the Critical Zone
12:50-13:05	Speedtalk 3	Aaron Davies (Latitude 66 Cobalt)/Steffen Hagemann	The Au-Co-Cu-REE Juomasuo (K1) deposit in the Kuusamo Schist Belt, Finland: lithological, structural and paragenesis controls on Au-Co mineralization
<b>13:05-14:00</b>	<b>Lunch and posters</b>		
<b>14:00-17:30</b>	<b>Topic 6</b>	<b>Chair: Marco Fiorentini</b>	<b>Metal and volatile cycling as a control on ore genesis across the lithosphere</b>
14:00-14:30	Talk 1 + Discussion	Dave Holwell (University of Leicester)	The metallogenic DNA of mineralising melts and fluids in the lithosphere
14:30-15:00	Talk 2 + Discussion	Margaux LeVaillant (CSIRO)	Natural and experimental constraints on volatile-assisted transport of magmatic sulfides
15:00-15:30	Talk 3 + Discussion	Laura Petrella (UWA)	Nanoparticle emulsions form hydrothermal ore deposits
<b>15:30-16:00</b>	<b>Coffee and posters</b>		
16:00-16:15	Speed talk 1	Weronika Gorczyk	Carbon cycle and ore genesis
16:15-16:30	Speed talk 2	Chris Gonzalez	Geodynamics and dissolution processes: The good, the bad, the ugly
16:30-16:45	Speed talk 3	Maria Cherdantseva (UWA)	Three-liquid immiscibility between silicate, carbonatite and sulfide melts in magmatic sulfide deposits
16:45-17:00	Speed talk 4	Daryl Blanks (University of Leicester)	Fluxing of mantle carbon as a physical agent for metallogenic fertilization of the crust
17:00-17:30	Panel discussion	<b>Panel Chairs: Fiorentini/ Gorczyk</b>	Gonzalez, Howell, LeVaillant, Petrella, Cherdantseva, Blanks

## COST PER PERSON

### Members

2 days \$350

1 day \$175

### Non Members

2 days \$500

1 day \$250

## REGISTRATION

[via the cet website](#)

For more information contact:  
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