

## 07:00 REGISTRATION

08:00 Welcome and introduction *J Wesseloo, MGR 2019 Conference Chair, Australian Centre for Geomechanics, Australia*

## KEYNOTE ADDRESS AND MANAGEMENT AND GEOTECHNICAL RISK (1)

CHAIR *ECF Hamman, AngloGold Ashanti Australia Ltd, Australia*

08:15 KEYNOTE: Understanding, managing, and communicating geomechanical mining risk  
*J Hadjigeorgiou, University of Toronto, Canada*

09:00 Challenges with use of risk matrices for geohazard risk management for resource development projects *M Porter, M Lato, BGC Engineering Inc., Canada; P Quinn, BGC Engineering Inc., Belgium; J Whittall, BGC Engineering Inc., Canada*

09:30 Combining expert opinion and instrumentation data using Bayesian networks to carry out slope collapse risk assessment *R Mishra, R Kiuru, L Uotinen, M Janiszewski, M Rinne, Aalto University, Finland*

## 10:00 MORNING BREAK

## KEYNOTE ADDRESS AND MANAGEMENT AND GEOTECHNICAL RISK (2)

CHAIR *BK Hebblewhite, UNSW Sydney, Australia*

10:30 KEYNOTE: What are the real risks for tailings facilities? *BS Brown, Bruce Brown Consulting Pty Ltd, Australia*

11:15 Improving board assurance of technical and operational risks in mining *AC Atkins, Alex Atkins & Associates Pty Ltd, Australia; M Ritchie, Professional Auditor, Australia*

11:45 Economic significance of geotechnical uncertainties in open pit mines *R Jele, MJ Dunn, Evolution Mining Ltd, Australia*

12:15 Using qualitative risk assessment as a leading indicator for geotechnical risk in mining  
*ECF Hamman, J Venter, AngloGold Ashanti Australia Ltd, Australia*

## 12:45 LUNCH

## RISK MANAGEMENT, MONITORING AND INTEGRATION (1)

CHAIR *K Sonnekus, Department of Jobs, Precincts and Regions, Australia*

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MINING

13:45 InSAR tools for risk assessment over mine assets *JL Morgan, TRE Altamira, Australia; D Colombo, F Meloni, TRE Altamira, Italy*

14:15 Using an integrated monitoring platform to communicate geotechnical risk to project stakeholders *WJ Conrad, AM Neuwirt, Canary Systems, Inc., USA*

14:45 Seismic exclusions and re-entry from a risk perspective *SR Tierney, KR Woodward, J Wesseloo, Australian Centre for Geomechanics, The University of Western Australia, Australia*

## 15:15 AFTERNOON BREAK

## QUANTITATIVE APPROACHES TO DESIGN

CHAIR *S Narendranathan, GHD Pty Ltd, Australia*

15:45 Production-associated risk factors of seismicity in the Kiirunavaara mine *J Vatcher, Itasca Consultants AB, Sweden; M Bošković, Luossavaara-Kiirunavaara Aktiebolag (LKAB), Sweden; J Sjöberg, Itasca Consultants AB, Sweden*

16:15 Construction of a damage risk model for footwall drifts *J Andrijasevich, H Basarir, The University of Western Australia, Australia; J Wesseloo, Australian Centre for Geomechanics, The University of Western Australia, Australia*

16:45 PRINCIPAL SPONSOR PRESENTATION: *R Rimmelin, BHP, Australia*

## 17:00 DAY ONE CLOSE

TECHNICAL SESSION AND LUNCH  
SPONSOR

**BHP**

## KEYNOTE ADDRESS AND RISK MANAGEMENT FROM A CORPORATE PERSPECTIVE

CHAIR S Arndt, Dassault Systèmes, Australia

TECHNICAL SESSION SPONSOR



- 08:00 KEYNOTE: Major hazards associated with cave mining: are they manageable? G Flores-Gonzalez, Newcrest Mining Limited, Australia
- 08:45 Key considerations when developing a risk management framework for tailings facilities AG Gagnon, Lundin Mining Corporation, Canada
- 09:15 Geotechnical risk in mining methods and practice: critical issues and pitfalls of risk management BK Hebblewhite, UNSW Sydney, Australia
- 09:45 MORNING BREAK

## KEYNOTE ADDRESS AND MANAGEMENT OF LARGE AREAS WITH LIMITED RESOURCES

CHAIR AC Atkins, Alex Atkins &amp; Associates Pty Ltd, Australia

- 10:15 KEYNOTE: Risk-based access control at Mount Isa Copper Operations GS Potgieter, AB Grubb, Mount Isa Mines Limited, A Glencore Company, Australia
- 11:00 Managing geotechnical risk in multi-pit operations SDN Wessels, R Dixon, Rio Tinto Iron Ore, Australia
- 11:30 Geohazard risk management for linear transportation M Lato, BGC Engineering Inc., Canada; P Quinn, BGC Engineering Inc., Belgium; M Porter, S Newton, BGC Engineering Inc., Canada; R Dixon, SDN Wessels, L Wessels, Rio Tinto Iron Ore, Australia; D Sirois, M Leveque, Iron Ore Company of Canada, Canada
- 12:00 Use of the excavation compliance indicator at the Oyu Tolgoi copper-gold mine, Mongolia A Juldyz, Oyu Tolgoi LLC, Mongolia
- 12:30 LUNCH

## RISK MANAGEMENT, MONITORING AND INTEGRATION (2)

CHAIR RG Rimmelin, BHP, Australia

TECHNICAL SESSION SPONSOR



- 13:30 A practical safety risk model for monitoring program design J Venter, ECF Hamman, AngloGold Ashanti Australia Ltd, Australia
- 14:00 A measured risk approach to managing the design and operation of a tailings storage facility JP Coffey, JD Plunkett, Rio Tinto Iron Ore, Australia
- 14:30 Data-driven geotechnical hazard assessment: practice and pitfalls WJ McGaughey, Mira Geoscience Ltd, Canada
- 15:00 AFTERNOON BREAK

## RISK MANAGEMENT, MONITORING AND INTEGRATION (3)

CHAIR IG Morkel, Australian Centre for Geomechanics

- 15:30 Calibration of a seismic hazard assessment tool using velocity fields and geotechnical data Y Abolfazlzadeh, L Smith-Boughner, Z Anderson, ESG Solutions, Canada; A Jalbout, Goldcorp Inc., Canada; A Mataseje, ESG Solutions, Canada
- 16:00 Calibrating and testing of the forecasts of seismic hazard for planned mining sequences DA Malovichko Institute of Mine Seismology, Australia
- 16:30 MAJOR SPONSOR PRESENTATION: Evolution Mining
- 16:35 MAJOR SPONSOR PRESENTATION: Maptek Pty Ltd
- 16:40 DAY TWO CLOSE

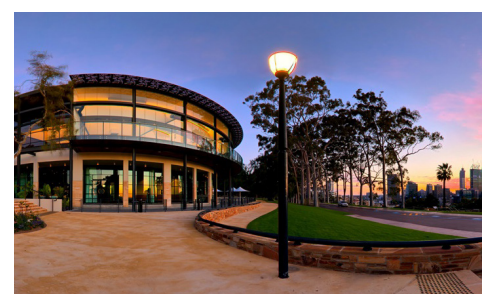
\*The programme is subject to change. For updates, please visit [www.mgr2019.com](http://www.mgr2019.com)

## Conference Dinner | Frasers Restaurant, Kings Park Wednesday, 10 April 2019 | 6:30pm

Venue: Frasers Restaurant, Fraser Ave, Kings Park, West Perth WA 6005  
Web: [frasersrestaurant.com.au](http://frasersrestaurant.com.au)

Fraser's Kings Park is located in the tranquil surrounds of Kings Park and sits high above the city with views of Perth city and the beautiful Swan River.

Join us for an evening of relaxation, fine dining and networking at this stunning location. To register, tick MGR 2019 Conference Dinner when registering online at [www.mgr2019.com](http://www.mgr2019.com) or via the form on the back page.



## KEYNOTE ADDRESS AND QUANTITATIVE RISK-BASED DECISION-MAKING

CHAIR MJ Dunn *Evolution Mining Ltd, Australia*

TECHNICAL SESSION SPONSOR



- 08:00 KEYNOTE: Geotechnical risk-informed decision-making in mining *JF Lupo Newmont USA Limited, USA*
- 08:45 Geotechnical value quantification through real options *J Venter, ECF Hamman, AngloGold Ashanti Australia Ltd, Australia*
- 09:15 Geotechnical risk analysis for the closure alternatives of the Chuquicamata Open Pit *L-F Contreras, SRK Consulting (South Africa) (Pty) Ltd, South Africa; E Hormazabal, SRK Consulting (Chile) S.A., Chile; R Ledezma, M Arellano, Codelco, Chile*

09:45 MORNING BREAK

## DATA DRIVEN RISK ASSESSMENT (1)

CHAIR *J Venter, AngloGold Ashanti Australia Ltd, Australia*

- 10:15 Quantifying uncertainty in mining geomechanics design *MJ Dunn, Evolution Mining Ltd, Australia*
- 10:45 The role of the geotechnical model for rapid integration in managing operational geotechnical risk *MC Brockman, KMR Gosche, DJ Du Plooy, AngloGold Ashanti Australia Ltd, Australia*
- 11:15 Getting back to basics: risk fundamentals applied to the geotechnical engineering of tailings storage facilities *JP Coffey, N Susic, Rio Tinto Iron Ore, Australia*
- 11:45 Probabilistic stability analyses for sedimentary deposits *A Duran, Pells Sullivan Meynink Pty Ltd, Australia*

12:15 LUNCH

## DATA DRIVEN RISK ASSESSMENT (2) &amp; CASE STUDIES (1)

CHAIR *H Basarir, The University of Western Australia, Australia*

- 13:15 Review of the practical effectiveness of thin spray-on liners based on information from suppliers and observations from the mining industry *MJ Kanda, TR Stacey, University of the Witwatersrand, South Africa*
- 13:45 Development of the Mine Geotechnical Risk Index *S Narendranathan, M Cheng, GHD Pty Ltd, Australia*
- 14:15 Geotechnical design and uncertainty in residual soil slopes *KT Mandisodza, MJ Dunn, Evolution Mining Ltd, Australia*

14:45 AFTERNOON BREAK

## CASE STUDIES (2)

CHAIR *S Tierney, Australian Centre for Geomechanics*

- 15:15 Managing geohazard risk during mineral exploration at remote locations in rugged terrain and tropical environments *J Whittall, BGC Engineering Inc., Canada; P Quinn, BGC Engineering Inc., Belgium; M Lato, M Porter, BGC Engineering Inc., Canada; B Bowden, J Drew, M Croaker, Rio Tinto Exploration Pty Ltd, Australia*
- 15:45 A case study: managing decline deformation in an active sublevel caving operation *MJ Woods, S Fitch, J Doolan, DS Barnett, Newcrest Mining Limited, Australia*
- 16:15 MAJOR SPONSOR PRESENTATION: Reutech Mining
- 16:20 Closing address *J Wesseloo, MGR 2019 Conference Chair, Australian Centre for Geomechanics, Australia*

\*The programme is subject to change. For updates, please visit [www.mgr2019.com](http://www.mgr2019.com)

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