



# SANIRE

SOUTH AFRICAN NATIONAL INSTITUTE  
OF ROCK ENGINEERING

13 - 14 June 2024  
Silverstar Hotel Conference  
Centre, Muldersdrift

## SANIRE SYMPOSIUM 2024 TECHNICAL APPLICATIONS IN ROCK ENGINEERING



### Final Programme

#### Conference Day 1 - Thursday 13 June 2024



- 07:00-08:15 **Registration Opens and Early Morning Refreshments**
- 08:15-08:20 **Safety Briefing**  
Venue Official
- 08:20-08:25 **Welcome and Opening Address**  
K. Le Bron, SANIRE President

#### DAY 1: KEYNOTE SPEAKERS

- 08:25-08:55 **Keynote Speaker: Winning the war on falls of ground**  
L. Tsele, Minerals Council, South Africa
- 08:55-09:25 **Keynote Speaker: Advancing rock engineering skills for a sustainable future in Mining**  
T. Mashongoane, Mining Qualifications Authority, South Africa

#### DAY 1 - SESSION 1

**Session Chair:** K. Bosman, Open House Management Solutions, South Africa

- 09:25-09:45 **Grouted cable anchor load-bearing characteristics**  
R. Carstens<sup>1</sup>, D. O'Connor<sup>2</sup>, and J. Potgieter<sup>3</sup>,  
<sup>1</sup>Anglo American Corporations, <sup>2</sup>Minova Africa  
and <sup>3</sup>M and J Mining (Pty) Ltd, South Africa
- 09:45-10:05 **Hydraulic fracturing for deep gold mine pillar preconditioning**  
D. Roberts<sup>1</sup>, L. Scheepers<sup>1</sup>, D. Lamprecht<sup>1</sup>,  
P. Lenegan<sup>1</sup>, and G. Klee<sup>2</sup>, <sup>1</sup>Sibanye-Stillwater  
and <sup>2</sup>Solexperts AG, South Africa
- 10:05-10:10 **Sponsor Presentation**  
C. Brink, M and J Mining, South Africa 
- 10:10-10:15 **Sponsor Presentation**  
HMA, South Africa 
- 10:15-10:35 **Early Morning Break**  
**Sponsorship videos and Logo Display**

#### DAY 1 - SESSION 2

**Session Chair:** C. Fietze, SLR Consulting, South Africa

- 10:35-10:55 **Geomechanical assessments of four deep/ ultra-deep gold mine shaft pillar extractions within the context of shaft preservation and destruction**  
B.S. Vaughan, T. Rangasamy, and E. Kleynhans,  
Middindi Consulting (Pty) Ltd, South Africa

10:55-11:15

**Transitioning from an open pit to an underground caving mine operation: Geotechnical considerations**

M. Majaule and N. Lefu, Lucara Botswana, Botswana

11:15-11:35

**Deciphering deformation: A tripartite study of InSAR, ground-based SSR, and 3D numerical modelling data**

M. Pretorius<sup>1</sup>, I. Gkikas<sup>2</sup>, J. Scoular<sup>2</sup>  
J. Pretorius<sup>2</sup>, and Q. Grix<sup>3</sup>, <sup>1</sup>Vedanta - Gamsberg  
<sup>2</sup>SkyGeo and <sup>3</sup>Open House Management  
Solutions, South Africa

11:35-11:55

**Product testing underground to confirm laboratory results of V-Seal**

G. Gainsford, Sula Sula (Pty) Ltd (t/a Carbontech)

11:55-12:00

**Sponsor Presentation**

T. Makaza, Fabchem, South Africa



12:00-12:05

**Sponsor Presentation**

J. Taylor, Carbontech



**CARBONTECH**  
066 197 0404

12:05-13:05

**Lunch Break**

#### DAY 1 - SESSION 3

**Session Chair:** D. Mathews, M and J Mining, South Africa

13:05-13:25

**Slope monitoring - The use of slope stability radar to successfully manage Kolomela mine's biggest slope failure**

F.M. Mokgethoa, Anglo American Kumba Iron Ore, South Africa

13:25-13:45

**Launch of SANIRE Education Platform**

D. Viljoen, Insight Online, South Africa

13:45-13:50

**Sponsor Presentation**

E. Viljoen, Reutech, South Africa

**REUTECH**  
MINING

13:50-13:55

**Sponsor Presentation**

R. Podmore, Hexagon Mine Monitoring, South Africa



13:55-14:05

**Closure of the Presentations**

K. Le Bron, SANIRE President

14:05-14:25

**Preparing for RockBowl**

14:25-16:25

**Session 4: RockBowl**

Session Chair: T. Gcuda, University of the Witwatersrand, South Africa

18:30

**Symposium Dinner**



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## SANIRE SYMPOSIUM 2024 TECHNICAL APPLICATIONS IN ROCK ENGINEERING



### Final Programme

#### Conference Day 2 - Friday 14 June 2024

07:30-08:00 Registration Opens and Early Morning Refreshments

#### DAY 2: KEYNOTE SPEAKER

08:00-08:30 **Keynote Speaker: Developments in pillar design**  
B. Watson, *University of the Witwatersrand, South Africa*

#### DAY 2 - SESSION 1

**Session Chair:** J. Hanekom, *CSIR, South Africa*

08:30-08:50 **Transforming geotechnical decision-making using the internet of things and data analytics**  
J.J. Meiring, P.S. Piper, and C.A. Smith, *Groundwork Consulting, South Africa*

08:50-09:10 **Support design for wide stoping heights resulting from footwall lifting of previously mined Merensky panels**  
B.B. Tati<sup>1</sup> and B.P. Watson<sup>2</sup>, *<sup>1</sup>Impala Platinum Mine and <sup>2</sup>The University of the Witwatersrand, South Africa*

09:10-09:30 **Slope failure measurement case studies at Husab open pit mine**  
C.R. Thikusho<sup>1</sup> and B.P. Watson, *<sup>1</sup>Husab Mine, Namibia and <sup>2</sup>The University of the Witwatersrand, South Africa*

09:30-09:35 **Sponsor Presentation**  
B. Morena, *Maptek, South Africa*



09:35-09:55 **Early Morning Break**

#### DAY 2 - SESSION 2

**Session Chair:** S. Durapraj, *SSW, South Africa*

09:55-10:15 **Pillar stability assessment methodology for massive mines**  
Q. Enslin and J.D. Bosman, *Open House Management Solutions, South Africa*

10:15-10:35 **Using alternative methods and tools to prove drilling into a misfire**  
M. Wiggins<sup>1</sup>, L. Scheepers<sup>1</sup>, and J. Gerber<sup>2</sup>, *<sup>1</sup>Sibanye Stillwater and <sup>2</sup>Institute of Mine Seismology, South Africa*

10:35-10:55 **Mining-induced classification for rockburst prediction: A case study in Siphumelele Platinum Mine, South Africa**  
R.T. Masethe<sup>1</sup>, S. Durapraj<sup>1</sup>, and A.C. Adoko<sup>2</sup>, *<sup>1</sup>Sibanye-Stillwater PGM, South Africa and <sup>2</sup>Nazarbayev University, Kazakhstan*

10:55-11:05 **Closure of Symposium**

11:05 **Closing Refreshments**