

# **Comminution 2014**

**Cape Town, South Africa  
7 – 10 April 2014**

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## Comminution '14



### Sunday 6<sup>th</sup> April

16.30-18.00 Registration and wine reception, with hot and cold canapés (accompanying persons welcome)

### Monday 7<sup>th</sup> April

- 07.30 Registration desk opens  
Light breakfast of filled croissants, tea, coffee and fruit juice
- 08.30 Opening Remarks  
B.A. Wills (MEI, UK) and M.S. Powell (JKMRC, Australia)
- 08.55 Presentation of 2013 MEI Young Person's Award
- 09.00 *Technical Session 1*  
Chairmen: L.M. Tavares (Universidade Federal do Rio de Janeiro, Brazil) and M.H. Moys (University of Witwatersrand, South Africa)
- 09.00 **Keynote Lecture: The next stage of evolution in comminution** **1**  
A. Muir (AngloGold Ashanti, South Africa)
- 09.30 **Implementation of dynamic simulation at Anglo Platinum** **11**  
G. Asbjörnsson, E. Hulthén and M. Evertsson (Chalmers University of Technology, Sweden)
- 09.50 **Mechanistic modeling of the vertical shaft impact crusher (VSI)** **27**  
E.R. da Cunha, R.M. de Carvalho and L.M. Tavares (Universidade Federal do Rio de Janeiro, Brazil)
- 10.10 Coffee, exhibition and poster viewing
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 Chairmen: K.P. van der Wielen (SELFRAG AG, Switzerland) and A. Hinde (Mintek, South Africa)
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C.L. Schneider and T.B. Duque (CETEM, Brazil)
- 15.00 **Comparison of single particle, Bond and bed tests for fine particle ore breakage characterisation** 141  
G.R. Ballantyne, F. Shi, B. Bonfils and M.S. Powell (JKMRC, Australia)
- 15.20 Coffee
- 16.00 **Breakage characterization of multicomponent ore** N/A  
L.X. Liu, F. Saeidi and M.S. Powell (JKMRC, Australia)
- 16.20 **What is needed to develop the next generation of mechanistic breakage models in comminution?** 148  
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F. Shi, W. Xie and M. Powell (JKMRC, Australia)
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F.P. van der Meer and S. Oenof (Weir Minerals, The Netherlands)
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G.K.P. Barrios, L.M. Tavares (University of Rio de Janeiro, Brazil) and J. Pérez-Prim (DEM Solutions Ltd, UK)
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H. Lehto (Outotec Oy, Finland)
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C. Martin (RSG Inc., USA)
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D.B. Mazzinghy, R. Galéry (UFMG, Brazil), C.L. Schneider (CETEM, Brazil) and V.K. Alves (VALE S.A., Brazil)
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H. Kotzé (Dakot Milling Media (South Africa) and N. Bedesi (Anglo American Platinum, South Africa)
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P. Radziszewski (Metso Minerals, Canada)
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K.P. van der Wielen, A. Weh, M. Hernandez, R. Müller-Siebert (SEFRAG AG, Switzerland)
- 17.00 Happy Hour. Vineyard Gardens. Accompanying guests welcome

#### Thursday 10<sup>th</sup> April

- 08.15 Light breakfast of filled croissants, tea, coffee and fruit juice
- 09.00 *Technical Session 7*  
 Chairmen: C.J. Greet (Magotteaux Australia Pty Limited, Australia) and P. Radziszewski (Metso Minerals, Canada)
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F. Silbermann (ThyssenKrupp Resource Technologies, Germany)
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 A. Gaztelu, I. Atutxa and I. Legarra (Ingeteam Power Technology, Spain)
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- 15.00 **Conference summary and open discussion on the future of comminution** P IC  
A.N. Mainza (University of Cape Town, South Africa)
- 15.40 **Closing Remarks and Invitation to Comminution '16** P IC  
A.J. Wills (MEI, UK)
- 15.45 Farewell Coffee and Wine in Vineyard Gardens (accompanying persons welcome)

## POSTERS

- Development of a mechanistic model to define the incremental damage mechanics of rock samples** N/A  
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- Mill relining optimization for greenfield plant design and brownfield sites' relining practices through filmed data and simulation** N/A  
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- Application of Fourier and Wavelet Methods to an experimental tumbling mill using 3D particle tracking data** 794  
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**An assessment of the rock characteristics and the ball mill energy requirements at a mine in Ghana, West Africa** 805

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**Mechanical impacts analysis in SAG mills due to small failures in the electric drive** 826

V. Guerrero and J. Pontt (Universidad Federico Santa María, Chile)

**Modelling the energy spectra of a tumbling mill using DEM** 836

L. Bbosa, A. Mainza and I. Govender (University of Cape Town, South Africa)

**Mechanistic modelling of grinding in continuous ball mills** N/A

R. Carvalho and L.M. Tavares (Universidade Federal do Rio de Janeiro, Brazil)