Sunday April 19th

17.30-16.00 Registration and drinks reception, with hot and cold canapés
Accompanying guests welcome

Monday April 20th

08.00 Registration desk opens
Light breakfast, tea, coffee and fruit juice

09.00 Welcome to Physical Separation '26 and presentation of 2024 MEI Young Person's Award
J. Wills (MEI, UK) and B.A. Wills (MEI, UK_

09.20 *Technical Session 1*
Chairpersons: TBA

09.20 **Keynote Lecture: Back to the future: the resurgence of physical separations**
K. Waters (McGill University, Canada)

09.50 **Evolving sensor-based sorting technologies: tackling complexity and flexibility in applications**
P. Esteves (Steinert Latinoamericana, Brazil), N. Schmalbein, J. Knowds and S. Oenol (Steinert GmbH, Germany)

10.10 **Integrated ore sorting strategy for a copper mining and milling operation with major economic and environmental implications**
P. Nayak (InnovMine, Canada), B. Gorain (Ore2Metal, Canada) and Sandro (Vale, Brazil)

10.30 Coffee, exhibition and networking

11.30 **A method for predicting the performance of single particle sorters**
F. Riedel and H. Harbeck (ROKKSTA GmbH, Germany)

11.50 **Deep Learning for inclusion-type ore detection: performance assessment of CONTAIN™ in tungsten mining operation**
K. Bartram and R. Rezai (TOMRA Sorting, Germany)

12.10 **Triple product multi-sensor sorting system for effective copper ore preconcentration and optimal waste treatment**
J. Kolacz and J. Progorowicz (Comex, Poland)

12.30 **Pre-concentration strategies for rare earth ore from Norway's Fen deposit**
M.C. Vila, M.L. Dinis, A.C. Silva, A. Magane (University of Porto, Portugal), C. Bolle (École Nationale Supérieure de Géologie, France), E. Levei, I. Török (National Institute of

Research and Development for Optoelectronics, Romania), N. Gajendra and L. Ferrando-Climent (Institute for Energy Technology, Norway)

12.50 Lunch

14.00 *Technical Session 2*
Chairpersons: TBA

14.00 **Automated transport preparation of the naturally radioactive preconcentrate from a rare earths project**
H.G. Jung and P. Booth (GeoEnergy Consult, Germany)

14.20 **Real-time monitoring of size-passing fractions at hydrocyclone overflow via probe-based force measurement**
D. Tang (PRIF Mining Consortium and University of Adelaide, Australia), L. Chen (PRIF Mining Consortium, ARC Training Centre for Integrated Operations for Complex Resources, and University of Adelaide, Australia), L. Yang (ARC Training Centre for Integrated Operations for Complex Resources and University of Adelaide, Australia), R. Asamoah (PRIF Mining Consortium, ARC Training Centre for Integrated Operations for Complex Resources and University of South Australia, Australia) and E. Hu (University of Adelaide, Australia)

14.40 **Improving grinding efficiency with fine vibrating screen**
J. Tran (Derrick Corporation, USA)

15.00 **Hydrodynamic classification of a binary density feed with no by-pass**
D. Awuye, M. Amosah, J. Starrett, K. P. Galvin (University of Newcastle, Australia) and A.F.D.V. Rodrigues (Vale S.A., Brazil)

15.20 **Particle size distribution real-time monitoring for air classification with dense-phase particle flow**
D. Tang (ISER and University of Adelaide, Australia), L. Yang (ARC Training Centre for Integrated Operations for Complex Resources and University of Adelaide, Australia), L. Chen (ISER, ARC Training Centre for Integrated Operations for Complex Resources and University of Adelaide, Australia), R. Asamoah (ISER, ARC Training Centre for Integrated Operations for Complex Resources and University of South Australia, Australia) and E. Hu (University of Adelaide, Australia)

15.40 **Enhanced dewatering in a fishtail hydrocyclone with extended overflow: CFD and experimental insights**
A. Pukkella, T. Kjellin, I. Arce and E. Lessing (Metso, Finland)

16.00 Sundowner in hotel gardens, coffee, wine, beer and soft drinks
Accompanying guests welcome

Tuesday April 21st

08.45 Registration desk opens
Light breakfast, tea, coffee and fruit juice

09.20 *Technical Session 3*
Chairpersons: TBA

09.20 **Impact of conic curvature and wall roughness on gas cyclones: a computational and experimental study**
A.K. Pukkella, J.N. Rasera, J.J. Cilliers (Imperial College, UK) and K. Hadler (Imperial College, UK and European Space Resources Innovation Centre, Luxembourg)

09.40 **Reducing water consumption in complex clay ore processing using the RIMM process**
D.W. Effah, R. Asamoah (University of South Australia, Australia) and P. Spiridonov (University of South Australia and InnovEco, Australia)

10.00 **The critical role of earthing in high tension roll separators: impacts of roller and brush wear on separation efficiency**
N. Boonzaier, M. Troskie and D. Pepper (Mineral Technologies, Australia)

10.20 Coffee and exhibition

11.20 **Beneficiation of mineral ores using tribo-electrostatic separator**
A. Gupta, T. Newman and F. Hrach (ST Equipment & Technology LLC, USA)

11.40 **Assessing magnetic separation as a beneficiation strategy for upgrading rare earth elements minerals in difficult to leach clay hosted ore**
G.B. Abaka-Wood (University of South Australia, Australia)

12.00 **Utilising physical separation to recovery graphite from mixed NCM/LFP lithium-ion battery black mass**
Y.T.C. Kwebou, S. Mohammadi-Jam, K. Waters, O. Kökkılıç (McGill University, Canada), E.H. Driscoll and R. Sommerville (University of Birmingham, UK)

12.20 **Novel dry high-intensity magnetic separation for iron ore beneficiation**
Z. Rezaee, M. Zanin, W. Skinner and G. Abaka-Wood (University of South Australia, Australia)

12.40 Lunch

14.00 *Technical Session 4*
Chairpersons TBA

14.00 **A study of the carrying capacity of a wet high intensity magnetic separator in the recovery of fine hematite from quartz**
Z. Rezaee, W. Skinner, G.B. Abaka-Wood (University of South Australia, Australia) and M. Zanin (MZ Minerals, Australia)

14.20 **Comparative analysis of Davis Tube and WLIMS Performance of two magnetite ores**
N. Maistry and A. Singh (Mintek, South Africa)

14.40 **Estimation of magnetic susceptibility of individual mineral phases and particles**
A.Siddique and T. Leißner (TU Bergakademie Freiberg, Germany)

15.00 **Iron and aluminium removal from phosphate ore by wet high intensity magnetic separation**
I. Sixhuta, S. Singh, G. Marape, D. Rose, A. Singh and S. Kumar (Mintek, South Africa)

15.20 **An investigation into reprocessing Cu–Ni flotation tailings by gravity and magnetic separation to concentrate PGMs and reduce tailings sulphur content**
O. Kökkılıç, K. Duguay, R. Li, S. Mohammadi-Jam and K.E. Waters (McGill University, Canada)

15.40 **Processing the Crater Lake scandium deposit using physical separation**
L.F. Uwayezu, O. Kökkılıç, S. Mohammadi-Jam, J. Tiong, A.E.Williams-Jones and K.E. Waters (McGill University, Canada)

16.00 Coffee

18.45 Coaches leave for conference dinner at Kirstenbosch Botanical Gardens

Wednesday April 22nd

08.30 Registration desk opens
Light breakfast, tea, coffee and fruit juice

09.00 *Technical Session 5*
Chairpersons: TBA

09.00 **RFID-based online density tracer system for dense media separation: a pilot trial**
J.W. Bezuidenhout (Consulmet (Pty) Ltd, South Africa) and M. Engelbrecht (IntaGrey (Pty) Ltd, South Africa)

09.20 **The recovery and concentration of scheelite using dense medium separation**
S.O. Oladele,A.R. Kumar and O.S. Ogunmodimu (The Pennsylvania State University, USA)

09.40 **Assessing the reprocessing potential of lithium tailings through dense medium separation**
J. Figueiredo (Federal University of Ouro Preto, Brazil and University of Porto, Portugal), M.C. Vila (University of Porto, Portugal), A. Lima (University of Porto and FCUP Pole, Portugal) and É. Linhares (Federal University of Ouro Preto, Brazil)

10.00 **Pre-concentration with IHC high recovery jigs, a viable solution to reduce today's footprint of a mineral processing plant**
T. de Boer and A.A. Ademoglu (IHC Mining BV, The Netherlands)

10.20 **Pilot scale testing of the 4th generation Reflux Classifier**
A. Gilbert (FLS, Australia)

10.40 Coffee

11.20 **Real-time spiral splitter control: a low-cost retrofit system for grade and recovery optimization**
D. Pepper and T. Blagden (Mineral Technologies Pty Ltd, Australia)

11.40 **Development and predictive modelling of a continuous spiral circuit using rougher stage data to achieve shaking table outputs**
T. Mokgomola, A. Singh (Mintek, South Africa) and V. Sibanda (University of the Witwatersrand, South Africa)

12.00 **Modelling a Multi Gravity Separator's capacity**
D. Cadwell (Gravity Mining Limited, UK)

12.20 **Recovery of pyrite and gold from historical tailings using Multi-Gravity Separation (MGS)**
S.J. Chingwaru and R. Blannin (The University of Queensland, Australia)

12.40 **Reprocessing cassiterite tailings using gravity preconcentration, comminution with efficient classification, and single stage gravity separation of the liberated minerals**
M.E. Amosah and K.P. Galvin (University of Newcastle, Australia)

13.00 Conference closure and invitation to Physical Separation '28
A.J. Wills (MEI, UK)

13.10 Farewell lunch, with wine, beers and soft drinks