



South African National
Committee on Tunnelling

SANCOT SYMPOSIUM 2022

7-8 NOVEMBER 2022
WALLENBERG CONFERENCE CENTRE @
STIAS, STELLENBOSCH, WESTERN CAPE
SOUTH AFRICA

Tunnel boring in civil engineering and mining



Final Programme

Sunday, 6 November 2022

18:00–20:30 **Welcome Networking Reception and Early Registrations**
Wallenberg Conference Centre @STIAS,
Stellenbosch: **Dress Code:** Smart Casual
(Sponsored by SRK Consulting)

12:15–12:45 **Multiple use applications of super water absorber polymer**
M. Sposetti, *Master Builders Solutions Construction Chemicals LLC, South Africa*

12:45–12:55 **Sponsor Presentation**
Master Builders Solutions South Africa

Conference Day 1 – Monday, 7 November 2022

08:00–09:00 **Registration Opens & Early Morning Refreshments**

12:55–13:55

09:00–09:10 **Welcome and Opening Address**
G.J. Keyter, *Conference Chairperson*

13:55–14:25

09:10–09:15 **Safety Briefing**
Venue Official

14:25–14:55

09:15–09:30 **SAIMM Presidential Address**
Z. Botha

14:55–15:25

09:30–10:15 **Keynote Address: Polihali Transfer Tunnel: from feasibility to tender**
J. Sawyer, J. Parry, and M. Kastner, *Lesotho Highlands Water Project, Lesotho*

15:25–15:40

10:15–10:45 **Design and construction considerations for the Polihali diversion tunnels intake and the tunnel lining**
S. Kotele¹ and M.P. da Silva², ¹*Lesotho Highlands Development Authority (LHDA), Lesotho* and ²*Zutari (Pty) Ltd, South Africa*

15:40–16:10

10:45–10:55 **Sponsor Presentation**
Murray & Roberts Cementation

16:10–16:40

10:55–11:15 **Mid-Morning Refreshments**

11:15–11:45 **Challenges and trends with the excavation of long TBM tunnels**
K. Böppler, *Herrenknecht AG, Germany*

16:40

11:45–12:15 **Keeping flowing sands at bay: The use of slurry shield microtunnel boring in Cape Town's saturated sandy profiles**
H. Coetzee¹, A. Smit¹, F. van der Merwe², and C. Du Toit², ¹*CSV Construction (Pty) Ltd* and ²*WSP, South Africa*

16:40–18:00

18:00–21:30

Lunch

Challenging station crossing by a 13,08 m diameter EPB TBM in Lodz, Poland, with partial soil excavation
F. Bove, *Seli Overseas, Italy*

Tight radius curve Tunnel Boring Machines – reducing the need for intermediate shafts
B. Matheson, *Terratac, United Kingdom*

Rockmass characterization and support for the Polihali diversion tunnels and portals
G. Madear¹, G.J. Keyter², and C. Warren-Codrington³, ¹*Zutari (Pty) Ltd*, ²*SRK Consulting (Pty) Ltd*, ³*SMEC South Africa (Pty) Ltd, South Africa*

Afternoon Refreshments

TBM Tunneling for the 36 km Mine Transport Tunnel at the Woodsmith Polyhalite Mine, UK
J. Fawcett, *Strabag UK, Whitby, North Yorkshire, United Kingdom*

Innovation in civil tunnelling: What we can learn from a novel type of tunnel boring in mines
B. Grothen, *Robbins, USA*

End of conference day one

Time at Leisure

Conference Dinner

Delegates to meet at the Wallenberg Conference Centre @STIAS main reception @18:00 for departure to the dinner venue
Dress code: Smart Casual



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Conference Day 2 – Tuesday, 8 November 2022

08:00–09:00	Registration Opens & Early Morning Refreshments	12:15–13:00	Departure (Delegates to meet at the Wallenberg Conference Centre @ STIAS main reception @12:15. Delegates will be back at the Wallenberg Conference Centre by 17:00)
09:00–09:10	Welcome and Opening Address <i>R. Freese, Conference Chairperson</i>	13:00–13:30	Meet at the Tolcon offices followed by a for safety induction
09:10–09:15	Safety Briefing <i>Venue Official</i>	13:30–14:30	Drive to the western portal for a brief overview of the tunnel history, including design, construction and proposed upgrades to North and South bores <i>Presented by SMEC staff</i>
09:15–09:45	Ambient noise seismic wave methods for geotechnical applications <i>F. Malan, Institute of Mine Seismology, South Africa</i>	14:30–5:30	Drive through North Bore tunnel with stops at key points of interest
09:45–10:15	Support design for two tunnels at Anglo Platinum Mogalakwena Sandsloot Exploration Project using drill and blasting and mobile tunnel boring machine techniques <i>D. van Rooyen and R. Carstens, Anglo American, South Africa</i>	15:30 – 16:30	Conclude site visit at Eastern Portal with Q & A followed by return trip through South Bore
10:15–10:45	Mid-Morning Refreshments		Kindly note the technical visit is separably bookable and delegates are asked to bring their own PPE – hard hat, boots and high-visibility vest
10:45–11:15	The application of tunnel boring machine in the execution of incline and decline tunnels in mining project <i>M. Nasiri¹, H. Moammeri², and G. Stripp¹, ¹Sound Mining Solution, South Africa and ²Project Managers and Design Engineers Limited, Seychelles</i>		
11:15–12:00	Keynote Address: Hydropower tunnel failures – Risks and causes <i>D. Brox, Dean Brox Consulting, Canada</i>		
12:00	End of technical programme and light lunch		
12:15	Post Conference Technical Visit – Departure for the technical visit to the North Bore on the N1 Huguenot Tunnel between Paarl and Du Toitskloof		