

Practical inversion of AEM data using VPem1D and VPem3D

When: Saturday 9th September (Full day)

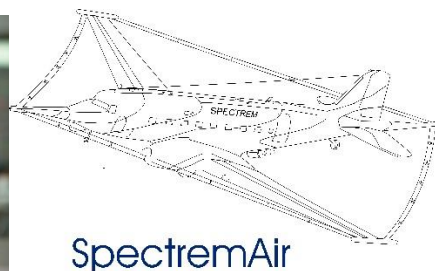
Minimum Delegates: 10

Includes: Lunch, Tea/Coffee

COST: R950 (VAT incl.) [Special student rate: R700] (VAT incl.)

Presenters:

David Khoza (SPECTREM AIR)



David Khoza is currently the Geophysics Manager at SPECTREM AIR, primarily focused on processing, modelling, interpretation and research projects involving AEM data. Before joining SPECTREM AIR on a full-time basis, David was working for Anglo American's Technical Solutions department, supporting Business Units in brown- and greenfield exploration projects and also Technology Development on the application of the SQUID sensors to minerals exploration.

He holds a BSc (Geology and Physics), BSc Honours (Geophysics) and a PhD (Geophysics) from the University of the Witwatersrand.

Peter Fullagar (FULLAGAR GEOPHYSICS PTY LTD)



Peter Fullagar is a geophysical consultant, with over 30 years experience in base metal and precious metal exploration, and in metalliferous and coal mining geophysics. Throughout his career he has strived to integrate geophysical and geological interpretation. Peter has developed a number of geophysical modeling and inversion programs, including VPem1D (now owned by Mira Geoscience) and VPem3D. He holds a PhD (Geophysics) from the University of British Columbia and is currently based in Vancouver.

James Reid (MIRA GEOSCIENCE)



James Reid is currently a Principal Consultant with Mira Geoscience in Perth, Western Australia. He has previously held positions with the University of Tasmania and Groundprobe Geophysics. At Groundprobe, he had technical responsibility for SkyTEM data acquisition, processing and interpretation. His current technical focus is on integrated interpretation of electromagnetic and potential fields data for mineral and groundwater exploration.

He holds B. Sc. (Hons.) and M. Sc. Degrees in Geophysics from the University of Sydney and a Ph. D. in Geophysics from Macquarie University.

About the workshop:

The workshop is for Geoscientists who are interested in how geophysical models are derived and most importantly how to derive these models themselves. VPem1D and VPem3D software separately and in combination, have been developed to provide new options to exploration and mining companies for rapid interpretation of ATEM surveys. VPem1D performs 1D inversion at each ATEM data location above a 3D model. VPem3D performs 3D inversion on time-integrated (resistive limit) data, which delivers massive increase in speed since the TEM inverse problem reduces to a quasi-magnetic problem.

The efficacy of the VPem approach will be demonstrated on SPECTREMPPLUS data from various projects (shallow and deep mapping). The use of conductivity depth images (CDIs) or 1D inversions combined with geological constraints as starting models to the 3D inversions will be demonstrated. This workshop will adopt a practical approach in that attendees will perform a hands-on inversion of AEM data from several geological terranes.