BCGS

BC Geophysical Society

Presented by EAGE EUROPEAN ASSOCIATION OF GEOSCIENTISTS & ENGINEERS and hosted by BCGS BC Geophysical Society

# Gravity and Magnetic Methods for Mineral Exploration

Dr. Yaoguo Li

A 1-day workshop covering the concepts and methodologies of gravity, gravity gradiometry, and magnetic surveys

## Thursday, December 13, 2018

8 am to 5 pm PST

BCIT Downtown Campus | 555 Seymour St, Vancouver, BC

## PRE-REGISTRATION NOW AVAILABLE

Email info@bcgsonline.org

to secure your spot for only CAD 115

Only ten early-bird spots available!

Full prices: EAGE member USD 85 (CAD 111), non EAGE member USD 175 (CAD 230), student EAGE member USD 60 (CAD 78), student non EAGE member USD 145 (CAD 190)

(Prices converted to CAD are approximate)

## Course Outline

**Part-I: Common concepts and methodologies**

- Fundamentals of potential-field data observed in gravity, gravity gradiometry, and magnetic surveys
- Data processing methods based on equivalent source technique and inverse formulation
- 3D gravity and magnetic inversions and the practical strategies for their efficient solution and applications to large-scale problems
- Binary inversion potential-field data in 3D
- Gravity gradiometry

**Part-II: Mineral exploration**

- Inversion and interpretation of magnetic data affected by remanent magnetization
- Case histories from mineral exploration

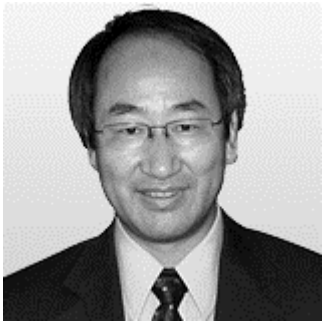
## Participants' profile

We anticipate the geoscientists in the following areas will benefit from the course:

- Potential-field methods
- Mineral exploration
- Integrate interpretation
- Reservoir monitoring
- Groundwater hydrology

## Prerequisites

Participants are expected to have basic background in applied geophysics and some knowledge of potential-field methods.



**Yaoguo Li** received his B.Sc. in geophysics from the Wuhan College of Geology (currently China University of Geosciences) in 1983, and a Ph.D. in geophysics from the University of British Columbia in 1992. He worked with the UBC-Geophysical Inversion Facility at UBC from 1992 to 1999, first as a Post-doctoral Fellow and then as a Research Associate. He is currently an Associate Professor of Geophysics at the Colorado School of Mines and leads the Center for Gravity, Electrical, and Magnetic Studies (CGEM) and the Gravity and Magnetics Research Consortium (GMRC). He is a co-recipient of the 1999 Gerald W. Hohmann Award, SERDP 2007 Project of the Year Award, and 2010 ASEG-PESA Laric Hawkins Award. His research interests include inverse theory; inversion of gravity, magnetic, and electrical & EM data arising from applied geophysics; and their application to resource exploration, environmental, and geotechnical problems. He has been doing research in these areas and has developed or co-developed a number of program libraries for inverting different types of geophysical data. These include DCIP2D, DCIP3D, GRAV3D, MAG3D, GG3D, BININV3D, and AMP3D.