Conditional Simulation for Mineral Resource Modelling

Workshop  |  May 4 - 6, 2017  |  Lima, Peru

Learn to increase the accuracy of your mineral resource and simulation models! Go beyond estimation and its limitations by modelling your deposit’s underlying variability and understanding the related uncertainties.

Calling all:
- Resource geologists and geoscientists creating mineral resource models and reports
- Mining engineers needing to know how grade uncertainty impacts mine plans

Overview:
This workshop will show attendees how to apply conditional simulation to mineral resource evaluation. Theoretical materials will illustrate the potential of geostatistics beyond the limitations of deterministic estimation. And practical exercises, using real data sets, will teach participants to create mineral resource models that indicate the range of local and global uncertainty in a deposit’s grades and do not suffer the biases typical of estimation. A free trial licence for Datamine Studio RM will be provided for these exercises.

Learn to:
- Build simulation models from raw data and report on the simulation results
- Characterize a deposit’s local and global grade uncertainty
- Build mineral resource models with greater global accuracy
- Validate simulation models using various criteria
- Use simulation results to assess how well interpolated models predict ore grade and tonnage
May 3, 2017   |   Datamine Studio RM Training

This complimentary training is optional, but strongly encouraged for anyone not yet familiar with the software and its conditional simulation algorithms. The session will be led by Datamine’s Guiselle Valderrama.

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SRK Canada’s Oy Leuangthong will lead the theoretical sessions and David Machuca the practical exercises, with support by Datamine specialists and resource geologists from SRK Peru. Topics covered will include:

- Data preprocessing for simulation: declustering, EDA, normal scores transformation
- Variography with normal score transformed data
- Simulation set-up: cell size, search strategy and parameters, multigrids, kriging type, realization numbers
- Simulation runs and checks, including histogram and variogram reproduction
- Realizations post-processing and upscaling, E-type estimation, ore/waste proportions and grades, post-processing result checking
- Use of simulated model for resource classification and ore/waste delimitation
- Advanced topics (time permitting): cosimulation of two variables, simulation types other than Datamine, including sequential indicator, truncated Gaussian, and multiple point simulation

Registration

Cost: 
Before April 5 - US$650
After April 5 - US$800

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Limited seats are available. Reserve your spot today!

SRK Canada Instructors

Oy Leuangthong  
PhD, PEng
Principal Consultant (Geostatistics)

Oy has 15 years of experience in using geostatistics for resource characterization and uncertainty assessment. She specializes in resource estimation and conditional simulation and has worked on simulation studies for copper, gold, zinc, nickel, and uranium projects in North America, South America, Africa, and Australia. Oy has taught geostatistics to international companies’ engineers and geologists as well as undergraduates and graduates at the Universities of Alberta and Toronto. She has authored and co-authored two books and more than 40 technical papers on geostatistics.

David Machuca  
PhD
Senior Consultant (Geostatistics)

David has 13 years of experience in resource modelling and is an expert in geostatistical resource estimation and simulation and the development of geostatistical algorithms and applications. He is also adept in evaluating mineral deposits and energy resources, including base metals in skarn, narrow vein, and disseminated gold deposits. His has also led multidisciplinary groups implementing 3D modelling for underground mines. He has authored and coauthored 18 papers and taught basic and advanced geostatistics at universities and for the industry in Canada and Peru.