



RISK ANALYSIS: THE GEOSTATISTICAL APPROACH

Objective

To provide an in-depth review of the different simulation methods applicable to uncertainty assessment in different application fields such as soil and water pollutants, soil science, hydrogeology, oceanography, fisheries and civil engineering.

Key features

Most commonly used simulation methods will be presented, from sequential methods (SGS, SIS) to the turning bands. The pros and cons of the different techniques will be discussed with particular attention being paid to their applicability to environmental data.

Who should attend

The course is designed for geologists, engineers and other geoscientists concerned with the analysis and quantification of risk, or for a better management of the available resources.

Course content

- Introduction: a review of the fundamentals required in order to perform geostatistical simulations - variography and kriging or cokriging.
- Why we need simulations: sensitivity of the observed statistics to the sampling, limitations of the use of the kriging, risk quantification.
- General overview of simulation methods for both continuous and categorical variables.
- Interpreting the results: histograms, quantile plots and isoprobability maps.

Half of the course time is devoted to computer exercises, using the Isatis softwarepackage in order to reinforce the previously presented theoretical notions.

Prerequisites

Participants should have a good working knowledge of basic geostatistical techniques: variograms and kriging or have attended the course **Geostatistics for Reliable Mapping with Isatis**.

Level

Advanced

Duration

2 days

Type

Classroom / Online

Language

English / French

Our trainers

Our trainers are senior geostatisticians, statisticians, geologists, mining or petroleum engineers adding up decades of experience in teaching geostatistics and carrying out consulting projects. They know your business and understand your specific challenges. They are also the ones who train the industry geostatistics experts.

The company

Geovariances offers a full suite of general or industry-related geostatistics training available worldwide in various languages.

Courses cover all aspects of geostatistics for resource estimation, contamination characterization, mapping or risk analysis. We provide a variety of training options, including live public, in-house or online sessions, with standard contents or customized to your team's unique needs.



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