Short course proposal - “Introduction to Geostatistics”

Lecturer : Professor J. Jaime Gómez-Hernández
Total number of teaching hours : 30 hours – 5 CFU
Final exam : yes, but exam mode and date have to be defined

A short course to be taught (in English) in six sessions of five hours (two hours in the morning, three hours in the afternoon) - two weeks on 23, 24, 25, 26, 29 and 30 June 2020.

DAY 1. Introduction. Recall of univariate and bivariate statistics. The need of spatial statistics. Characterization of spatial continuity. The variogram. Variogram models.

DAY 2. Introduction to SGeMS. Practical exercise on basic statistics calculation and variogram modeling.

DAY 3. Modeling spatial continuity. The random function model. Stationarity and ergodicity. The multiGaussian random function model.

DAY 4. Estimation. Ordinary kriging. Other flavors of kriging. Estimation exercise.

DAY 5. Modeling local uncertainty. MultiGaussian kriging. Indicator kriging. Modeling global uncertainty.

DAY 6. Stochastic simulation. Sampling from a random function model. Sequential simulation. Simulation exercise.

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