UP 4 - Design and Analysis of Computer Experiments

Mines Saint-Étienne - Data Science

Resp.: R. Le Riche

Outline

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- Bayesian optimization (R. Le Riche)
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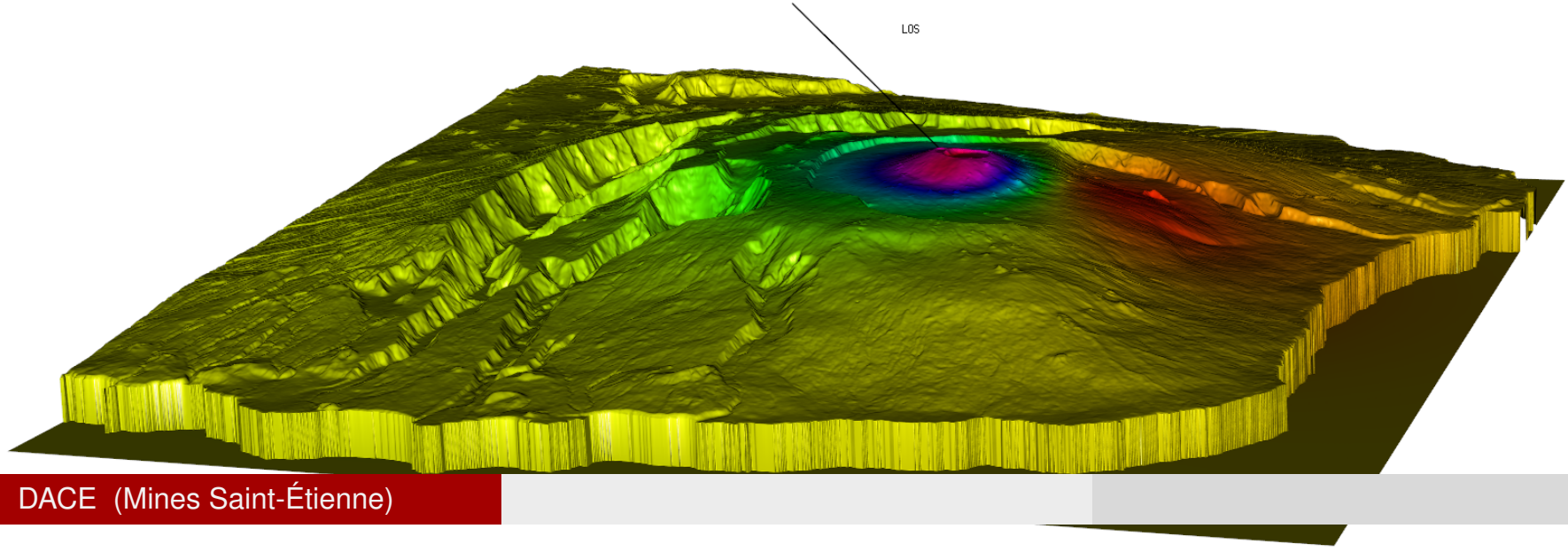
- \+ A guiding case study 'Volcano'!



Resources

1. DACE for beginners: Conference of the Oquaido Chair
2. The course of Nicolas Durrande, ex-lecturer at EMSE
3. The GPML book

The metamodelling course will be based on 4 lectures:

1. Random processes, Gaussian processes.
2. Gaussian process regression (GPR or kriging).
3. Functional point of view: Reproducing Kernel Hilbert Space (shortened is better! : RKHS).
4. Other metamodels with a focus on polynomial chaos.

Evaluation

1. 1 global exam: Test your math. skills on DACE.
2. 1 report on the case study: Test your savoir-faire on DACE.
3. Attendance is taken into account.