



Post-doctoral position

L2S (Laboratoire des Signaux & Systèmes) is recruiting, in collaboration with [CEA](#), a post-doctoral fellow in the field of statistical design and analysis of computer experiments.

Location: [Gif-sur-Yvette, France](#)

Duration: one year (available as of January 2017)

Mission

The candidate will work on multi-fidelity Gaussian process (GP) modeling for deterministic PDE-based simulators, focusing on non-stationary “time-space” models such as proposed by Picheny and Ginsbourger ([SIAM JUQ](#), 2013) and Tuo, Wu & Yu ([Technometrics](#), 2014). More precisely, the project will investigate

- the relevance of such models for uncertainty quantification when the true order of numerical convergence is unknown, and their potential connections with concepts from numerical analysis and CFD (Richardson extrapolation, grid convergence index, etc.);
- their application to calibration problems, using ideas from the literature on GP-based sequential design.

The methods developed during the project are expected to become part of the [STK toolbox](#) for Matlab/Octave.

Candidates profile

We are looking for highly motivated young researchers with a PhD in applied mathematics, statistics or machine learning, preferably with some background on Gaussian process modeling.

Fluency in English and/or French is mandatory.

Candidates are expected to be proficient in one or several high-level programming languages for numerical computing (Matlab/Octave, R, Python+Numpy, Julia...).

Application

Send your CV to julien.bect@centralesupelec.fr.