Introduction to numerical optimization using DAKOTA and OpenFOAM®

Instructor: Joel Guerrero

Training type: Intermediate

Session type: Hands-on or Lecture with examples

Software stack:

- OpenFOAM 3.0.x
- Dakota 6.3
- OpenSCAD
- Salome 7.7.1
- Python 2.7 (Anaconda)

Full description

In this training session the attendees will be introduced to numerical optimization using DAKOTA.

We will address how to:

1. conduct parametrical and design of experiments studies,
2. single and multi-objective optimization,
3. surrogate based optimization,
4. exploratory data analysis,
5. and how to couple DAKOTA with OpenFOAM® (or any other black box solver).

To follow this training session:

- a basic knowledge of OpenFOAM® is required;
- no prior knowledge of DAKOTA is required.