

## Special sessions

### Surrogate Global Optimization for Expensive Multimodal Functions

6th World Congress on Global Optimization (WCGO 2019)

July 8 - 10, 2019, Metz, France

<https://wcgo2019.event.univ-lorraine.fr/>

**Organizer:** Christine Shoemaker (Distinguished Professor of Industrial Systems Engineering and Management, National University of Singapore, and Ripley Professor Emerita of Cornell University, USA, Fellow of SIAM, INFORMS, AGU, ASCE, Member US National Academy of Engineering). Email: [isesca@nus.edu.sg](mailto:isesca@nus.edu.sg)

It is expected that others will join as co-organizers including Prof. Rommel Regis.

#### General description of the special session

The session will focus on optimization methods that employ surrogates (approximations of the objective function based on all previous evaluations of the objective function) to find the global minimum of multimodal functions. The main application is to functions that are relatively expensive, e.g. at least a minute and perhaps many hours for one objective function evaluation. The purpose of the surrogate is to reduce the number of objective function evaluations required to find an accurate solution to the optimization. We focus on multimodal problems. Most non-surrogate methods for multimodal functions (e.g. genetic algorithms or DIRECT) require a large number of function evaluations and so they are not feasible for expensive functions.

#### Sessions topics

The list of topics in this session includes, but not limited to:

- Single Objective Surrogate Global Optimization
- Multi Objective Surrogate Global Optimization
- Mixed Integer Surrogate Global Optimization
- Parallel Computation of Surrogate Global Optimization
- Surrogate Global Optimization for noisy multimodal functions.

#### Submission

Submissions are open at <https://wcgo2019.event.univ-lorraine.fr/page/submissions>

(Select the track “Special Session - Surrogate Global Optimization for Expensive Multimodal Functions”)

#### Important dates

January 31, 2019	Deadline for the submission
February 28, 2019	Notification of acceptance/rejection