



# NATURE-INSPIRED CONSTRAINED SINGLE-, MULTI-, AND MANY- OBJECTIVE OPTIMIZATION

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In their original versions, nature-inspired algorithms for optimization such as evolutionary algorithms (EAs) and swarm intelligence algorithms (SIAs) are designed to sample unconstrained search spaces. Therefore, a considerable amount of research has been dedicated to adapt them to deal with constrained search spaces. The objective of the session is to present the most recent advances in constrained optimization for single-, multi-, and many-objective optimization, using different nature-inspired techniques.

## Topics

- Novel constraint-handling techniques for single-, multi-, and many-objective optimization.
- Novel constraint-handling techniques for constrained dynamic optimization.
- Novel/adapted search algorithms for constrained optimization.
- Memetic algorithms in constrained search spaces.
- Parameter setting (tuning and control) in constrained optimization.
- Mixed (discrete-continuous) constrained optimization.
- Theoretical analysis and complexity of algorithms in constrained optimization.
- Performance evaluation of algorithms in constrained optimization.
- Expensive Constrained Optimization.
- Design of difficult and scalable test functions.
- Applications.