Sunday, 19th March 2017

12:30   **Registration**

13:30   **Opening Session**   *Session Chairs: Heike Trautmann and Günter Rudolph*

14:00   **Invited Talk**   *Session Chair: H. Hoos*
Thomas Stützle
Automated Design of Algorithms from Flexible Algorithm Frameworks

15:00   **Break**

15:20   **Session S-1**   *Session Chair: A. Gaspar-Cunha*

15:20   *Marlon Alexander Braun, Pradyumn Kumar Shukla and Hartmut Schmeck*
Angle-based Preference Models in Multi-objective Optimization

15:45   *Jussi Hakanen and Joshua Knowles*
On using decision maker preferences with ParEGO

16:10   *Longmei Li, Iryna Yevseyeva, Vitor Basto-Fernandes, Heike Trautmann, Ning Jing and Michael Emmerich*
Building and Using an Ontology of Preference-based Multiobjective Evolutionary Algorithms

16:35   *Florian Siegmund, Amos Ng and Kalyanmoy Deb*
A Comparative Study of Fast Adaptive Preference-Guided Evolutionary Multi-objective Optimization

17:00   **Break**

17:25   **Session S-2**   *Session Chair: D. Brockhoff*

17:25   *Miriam Pescador-Rojas, Raquel Hernández Gómez, Elizabeth Montero, Nicolás Rojas-Morales, María-Cristina Riff and Carlos A. Coello Coello*
An Overview of Weighted and Unconstrained Scalarizing Functions

17:50   *Naveed Reza Aghamohammadi, Shaul Salomon, Yiming Yan and Robin Purshouse*
On the effect of scalarising norm choice in a ParEGO implementation

18:15   *Roman Denysiuk and Antonio Gaspar-Cunha*
Weighted Stress Function Method for Multiobjective Evolutionary Algorithm Based on Decomposition

18:40   **Break – Gathering & Walk to Restaurant "Schlossgarten"**

19:00   **Start of Welcome Reception**

21:00   **End of Welcome Reception**

Monday, 20th March 2017

09:00 **Session M-1**   *Session Chair: S. Wessing*

09:00   *Arnaud Liefooghe, Bilel Derbel, Sébastien Verel, Hernán Aguirre and Kiyoshi Tanaka*
A Fitness Landscape Analysis of Pareto Local Search on Bi-objective Permutation Flowshop
Scheduling Problems

09:25   *Marie-Eleonore Kessaci-Marmion, Clarisse Dhaenens and Jérémie Humeau*
Neutral Neighbors in Bi-objective Optimization: Distribution of the most promising for permutation
problems.

09:50   *Kevin Tierney, Joshua Handali, Christian Grimme and Heike Trautmann*
Multi-Objective Optimization for Liner Shipping Fleet Repositioning

10:15 **Break**

10:40 **Session M-2**   *Session Chair: T. Stützle*

10:40   *Ryoji Tanabe and Akira Oyama*
The Impact of Population Size, Number of Children, and Number of Reference Points on The
Performance of NSGA-III

11:05   *Simon Wessing, Rosa Pink, Kai Brandenbusch and Günter Rudolph*
Toward Step-size Adaptation in Evolutionary Multiobjective Optimization

11:30   *Aymeric Blot, Alexis Pernet, Laetitia Jourdan, Marie-Eleonore Kessaci-Marmion and Holger Hoos*
Automatically Configuring Multi-objective Local Search using Multi-objective Optimisation

12:00 **Lunch**

13:15 **Session M-3**   *Session Chair: R. Purshouse*

13:15   *Haitham Seada, Mohamed Abouhawwash and Kalyanmoy Deb*
Towards a Better Balance of Diversity and Convergence in NSGA-III: First Results

13:40   *Flávio Vinícius Cruzeiro Martins, João Sarubbi and Elizabeth Wanner*
A Multiobjective Strategy to Allocate Roadside Units in a Vehicular Network with Guaranteed Levels of
Service

14:05   *Ahmed Khalifa, Mike Preuss and Julian Togelius*
Multi-objective Adaptation of a Parameterized GVGAI Agent Towards Several Games

14:30 **Poster Session (including Coffee & Cookies)**   *Session Chair: S. Meisel*

Pramudita Palar and Koji Shimoyama
Multiple Metamodels for Robustness Estimation in Multi-Objective Robust Optimization

Yves De Smet, Jean-Philippe Hubinont and Jean Rosenfeld
A note on the detection of outliers in a binary outranking relation

Richard Gonçalves, Lucas Pavelski, Carolina Almeida, Josiel Kuk, Sandra Venske and Myriam Delgado
Adaptive Operator Selection for Many-Objective Optimization with NSGA-III

Xavier Gandibleux
Peek -- Shape -- Grab: a methodology in three stages for approximating the non-dominated points of
multiobjective discrete combinatorial optimization problems with a multiobjective metaheuristic

Ruby Moritz and Sanaz Mostaghim
Heterogeneous Evolutionary Swarms with Partial Redundancy Solving Multi-Objective Tasks

Renan Mendes, Elizabeth Wanner, Flávio Martins and João Sarubbi
Dimensionality Reduction Approach for Many-Objective Vehicle Routing Problem with Demand Responsive Transport

Oliver Cuate, Oliver Schütze, Bilel Derbel, Arnaud Liefooghe and El-Ghazali Talbi
An Approach for the Local Exploration of Discrete Many Objective Optimization Problems

Kalyanmoy Deb, Rayan Hussein, Proteek Roy and Gregorio Toscano
Classifying Metamodeling Methodologies for Evolutionary Multi-Objective Optimization: First Results

Andreas Richter, Jascha Achenbach, Stefan Menzel and Mario Botsch
Multi-objective Representation Setups for Deformation-based Design Optimization

Susanne Rosenthal and Markus Borschbach
Design Perspectives of an Evolutionary Process for Multi-Objective Molecular Optimization

Amin Ibrahim, Shahryar Rahnamayan, Miguel Vargas Martin and Kalyanmoy Deb
Fusion of Many-Objective Non-dominated Solutions Using Reference Points

Hao Wang, Andre Deutz, Thomas Bäck and Michael Emmerich
Hypervolume Indicator Gradient Ascent Multi-objective Optimization

Ana Amélia Pereira, Helio Barbosa and Heder Bernardino
Predator-Prey Techniques for Solving Multiobjective Scheduling Problems for Unrelated Parallel Machines

16:10 **Competition Session**   *Session Chairs: Tobias Glasmachers & Michael Emmerich*

17:00 **Break**

17:25 **Session M-4**   *Session Chair: M. Emmerich*

  17:25 *Ke Li, Kalyanmoy Deb, Tolga Altinoz and Xin Yao*
           Empirical Investigations of Reference Point Based Methods When Facing a Massively Large Number of Objectives: First Results

  17:50 *Leonardo Bezerra, Manuel López-Ibáñez and Thomas Stützle*
           An empirical assessment of the properties of inverted generational distance indicators on multi- and many-objective optimization

  18:15 *Joao Duro and Dhish Saxena*
           Timing the Decision Support for Real-World Many-Objective Problems

18:40 **End of Technical Program**

Tuesday, 21st March 2017

09:00 **Invited Talk** *Session Chair: M. Preuss*
Julian Togelius
Challenges for Multi-Criterion Optimization in Games

10:00 **Break**

10:20 **Session T-1** *Session Chair: K. Deb*

10:20 *Fritz Bökler*
The Multiobjective Shortest Path Problem is NP-hard, or is it?

10:45 *Dimo Brockhoff, Anne Auger, Nikolaus Hansen and Tea Tušar*
Quantitative Performance Assessment of Multiobjective Optimizers: The Average Runtime Attainment Function

11:10 *Tobias Glasmachers*
A Fast Incremental BSP Tree Archive for Non-dominated Points

11:35 *Kaifeng Yang, Michael Emmerich, André Deutz and Carlos Fonseca*
Computing 3-D Expected Hypervolume Improvement and Related Integrals in Asymptotically Optimal Time

12:00 **Lunch**

13:15 **Session T-2** *Session Chair: Y. de Smet*

13:15 *Cristóbal Barba-González, José García-Nieto, Antonio J. Nebro and José F. Aldana-Montes*
Multi-Objective Big Data Optimization with jMetal and Spark

13:40 *Daniel Horn, Melanie Dagge, Xudong Sun and Bernd Bischl*
First Investigations on Noisy Model-Based Multi-Objective Optimization

14:05 *Vanessa Volz, Günter Rudolph and Boris Naujoks*
Surrogate-Assisted Partial Order-Based Evolutionary Optimisation

14:30 **Break**

14:55 **Session T-3** *Session Chair: B. Naujoks*

14:55 *Mario Garza-Fabre, Julia Handl and Joshua Knowles*
A New Reduced-Length Genetic Representation for Evolutionary Multiobjective Clustering

15:20 *Olivier Sobrie, Vincent Mousseau and Marc Pirlot*
A population-based algorithm for learning a Majority Rule sorting model with coalitional veto

15:45 *Pascal Kerschke and Christian Grimme*
An Expedition to Multi-Modal Multi-Objective Optimization Landscapes

16:10 **End of Technical Program**

17:30 **Guided City Tour Münster**
Starts at castle and will end at location of conference dinner.

19:00 **Conference Dinner at Restaurant "A2"**

23:00 **End of Conference Dinner**

Wednesday, 22nd March 2017

09:00   **Invited Talk**   *Session Chair: O. Schütze*
Michael Emmerich
Indicator-Based Multiobjective and Set-Oriented Optimization

10:00   **Break**

10:20   **Session W-1**   *Session Chair: C. Coello Coello*

> *10:20*   *Stefan Eppe and Yves De Smet*
> On the influence of altering the action set on PROMETHEE II's relative ranks

> *10:45*   *Magdalena Lang and Christian Grimme*
> Towards Standardized and Seamless Integration of Expert Knowledge into Multi-objective Evolutionary
> Optimization Algorithms

> *11:10*   *Akm Khaled Talukder, Kalyanmoy Deb and Shahryar Rahnamayan*
> Injection of Extreme Points in Evolutionary Multiobjective Optimization Algorithms

> *11:35*   *Julian Blank, Kalyanmoy Deb and Sanaz Mostaghim*
> Solving the Bi-Objective Traveling Thief Problem with Multi-Objective Evolutionary Algorithms

12:00   **Closing Session**   *Session Chairs: Heike Trautmann & Günter Rudolph*

- Conference Wrap-up
- Farewell

12:30   **Lunch**