

GOR-Arbeitsgruppe:  
Praxis der Mathematischen  
Optimierung  
Dr. Jens Schulz  
Fontaneweg 15  
D-16547 Birkenwerder  
  
Mail: [schulz-gor@gmx.net](mailto:schulz-gor@gmx.net)

Herewith, we invite you to the 103<sup>rd</sup> meeting of the GOR working group “Real World Optimization” at Fraunhofer ITWM Kaiserslautern. This meeting is hold as a symposium with the topic

## **Multicriteria Optimization and Decision Support in Industry**

The workshop takes place on November 21<sup>st</sup> & 22<sup>nd</sup>, 2019 on Thursday and Friday.

The working language will be preferably English, since some speakers or participants are expected from abroad.

Note that the participation in a GOR-AG-Workshop for non-members is subject to a registration fee, unless you are a speaker or a host.

Please register yourself online using <https://www.redseat.de/pmo103/>. The registration will be possible from May till October 2019. The latest information on the meeting is available on the homepage of the GOR (<http://www.gor-ev.de/arbeitsgruppen/praxis-der-mathematischen-optimierung>).

Yours sincerely,

Karl-Heinz Küfer  
(Fraunhofer ITWM, Kaiserslautern)

Jens Schulz, Julia Kallrath, Josef Kallrath  
(GOR AG)

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**Vorstand**

Prof. Dr. Anita Schöbel (Vorsitz)  
Prof. Dr. Alexander Martin (Arbeitsgruppen)  
Dr. Ulrich Dorndorf (Finanzen)  
Prof. Dr. Peter Letmathe (Tagungen)

**Kontakt**

geschaeftsstelle@gor-ev.de  
[www.gor-ev.de](http://www.gor-ev.de)  
Tel.: +49 (0) 241 80 23830  
Fax: +49 (0) 241 6 80 23830

**Bankverbindung**

Konto: 1 465 160  
BLZ: 430 500 01 Sparkasse Bochum  
IBAN: DE82430500010001465160  
BIC: WELADED1BOC

# Multicriteria Optimization and Decision Support in Industry

## Specific aims

Decision problems in practice are often governed by compromising between different conflicting goals: cost and quality, environmental impact and technical complexity or robustness of solutions. There are different strategies to cope with such conflicting objectives. A priori you can set constraints on several of these goals and go for optimization of a single criterion. This approach might cut away excellent and preferable solutions not far away from the chosen set of feasible solutions. Another approach is to compute a set of Pareto solutions and shift decisions on compromises between objectives after computation. This a posteriori approach is often costly and asks for decent decision support techniques in order to explore the variety of efficient solutions.

Fraunhofer ITWM, Kaiserslautern, Germany, will host the topic **Multicriteria Optimization and Decision Support in Industry** and asks for contributions to the questions:

- How to treat optimization problems with different conflicting objectives?
- How are compromises defined and found in practice based on mathematical models?
- What experiences have been made in your company, society with such problems?

The core of this 1.5 day workshop will certainly consist of an attractive schedule of talks. But there will be plenty of time for informal exchange and networking.

In talks of 15+5min, 25+5min or 40+5min duration, experts from practice and research will address problems and solutions.

If you are willing to contribute a talk, please feel free to contact any of the organizers.

Karl-Heinz Küfer ([kuefer@itwm.fraunhofer.de](mailto:kuefer@itwm.fraunhofer.de))

Jens Schulz ([schulz-gor@gmx.net](mailto:schulz-gor@gmx.net)) or Julia Kallrath ([julia.kallrath@h-da.de](mailto:julia.kallrath@h-da.de))

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## The following speakers are confirmed:

Karl-Heinz Küfer (ITWM Kaiserslautern)

*tba*

Sebastien Lannez (FICO)

*Multi-objective Optimization for Decision Trees*

Volker Maag

*Multi-criteria Optimization of Hybrid Energy Supply in Buildings*

*tba (tba)*

*Multi-criteria Planning in the Process Industry*

## Location

Fraunhofer-Institut für Techno- und Wirtschaftsmathematik ITWM

Fraunhofer-Platz 1

67663 Kaiserslautern

## Hotel & Travel

*Kaiserslautern is well equipped with nearby hotels and we ask you to arrange your stay in Kaiserslautern by yourselves. We may by mid of this year decide to at least propose a hotel.*

## Conference Dinner

*on Thursday evening, details will follow*

## Excursion

*We are in the planning process of the excursion on Thursday afternoon.*

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