Herewith, we invite you to the 106th meeting of the GOR working group “Practice of Mathematical Optimization” hosted by Zalando SE. This meeting is planned to be held in person (or virtually if circumstances so require) with the topic

**Applied Methods from Mathematical Optimization and Machine Learning for e-commerce**

The workshop takes place in Berlin hosted by Zalando SE on Thursday and Friday September 22-23. The working language will be English to be inclusive for a non-German speaking audience.

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. Given the uncertainty of Covid, travel restrictions, and company policies, we strongly advise you to book your stay and travel accordingly. Cancellation of the on-site event may occur on short notice, and the organizers will waive the registration fee but will not refund any other cost.

Registration will open once we have a good set of speakers.

The latest information on the meeting is available on the homepage of the GOR [http://www.gor-ev.de/arbeitsgruppen/praxis-der-mathematischen-optimierung/real-world-optimization](http://www.gor-ev.de/arbeitsgruppen/praxis-der-mathematischen-optimierung/real-world-optimization).

Yours sincerely,

Jens Schulz, Julia Kallrath, Josef Kallrath

(GOR AG)

Torsten Gellert

(Zalando SE)
Applied Methods from Mathematical Optimization and Machine Learning for e-commerce

Specific aims

Methods from mathematical optimization have become key ingredients of modern digitalization, decision-making and automation initiatives across industry. In recent years, the methods of artificial intelligence have improved a lot and have become a powerful addition to the more classical methods. E-commerce by its nature has already made a shift into a digitized business model driven by advanced analytic methods and successfully applying hybrid algorithms that combine techniques of mathematical optimization with machine learning – with applications in network design, warehousing & storage, pricing & forecasting, to name only a few. The underlying data and models are huge and steer two research directions: Firstly, how to efficiently solve large models in strategic and real-time use case and secondly, how to make decisions and take actions from applying such methods. This is certainly an omnipresent theme in many industries. Hence, in this workshop we explicitly (though not exclusively) welcome to exchange on learnings across industry on solving large real-world problems based on hybrid methods from mathematical optimization and machine learning.

About Zalando

Zalando connects customers, brands and partners in 23 countries. What started as a Berlin-based online shoe store in 2008 has transformed into a leading European online platform for fashion and lifestyle in just a few years. This achievement was enabled through great passion and the strong business sense of our team of more than 17,000 talents from 140 countries.

Complex business challenges arise in many areas of Zalando’s operations. Engaging customers with inspiring recommendations and discounts, and handling logistics fast and efficiently to customers’ satisfaction are just a few examples. With methods of machine learning integrated flawlessly with mathematical optimization, holistic decisions making across the company enable true customer centricity.

The core of this 1.5 day workshop will consist of an attractive schedule of talks covering a broad range of mathematical techniques and real world applications. As usually, we will reserve 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.

Jens Schulz (schulz-gor ‘at’ gmx.net)
Julia Kallrath (julia.kallrath ‘at’ h-da.de)
The following speakers are confirmed:

**Torsten Gellert (Zalando)**
Challenges in Large Scale Article Discounting

**Tba (Zalando)**
Inventory distribution across warehouses: optimization informed by ML
The venue & accommodation

Venue

The meeting is hosted by Zalando SE. It takes place at

BTD-L Hub
Tamara-Danz-Straße 1
10243 Berlin
Germany

How to get there?
600m walking distance from U+S Bahn Station Warschauer Straße
alternatively
via S Bahn Station Ostbahnhof either 1,100m walking distance or Bus 300 till Tamara-Danz-Str., right in front of the venue

Conference dinner

About one month before the event and according to the number of registrants, we will
arrange a nice venue in the vicinity to the conference location for the conference dinner.

Accommodation

Berlin offers a variety of hotels, pensions and b&b’s. Hence, we will not organize any
special rates nor reserve locations.
Bear in mind that due to external circumstances, the organizers may decide to cancel the
event, or switch to an online format. We cannot refund any cost incurred. Please, arrange
your bookings accordingly.