

# HPI Colloquium

**29.08.2019, 02:30 p.m. at HS 2**

Hasso-Plattner-Institut, Campus Griebnitzsee, 14482 Potsdam

## “From Theory to Better Genetic Algorithms”

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École Polytechnique, France

### **Abstract**

While theory is an integral part of research on bio-inspired algorithms for many years now, it is often believed to mostly give fundamental explanations, but not to really help improving the existing methods. In this talk, I will argue that this is not the full picture and that theoretical work can quickly lead to ready-to-use improvements of classic algorithms - at least if one reads the theoretical results right and if the theory community supports this by writing them up in an accessible manner.

### **Short CV**

Benjamin Doerr is a "professeur de classe exceptionnelle" at the French École Polytechnique since 2013. He got his PhD (2000) and habilitation (2005) from Kiel University and then was a senior researcher (tenured) at the Max-Planck Institute for Computer Science. His research area is the theory both of problem-specific algorithms and of randomized search heuristics like evolutionary algorithms. His research is published in around 250 papers and won 9 times a best-paper award at a leading conference. He is a member of the editorial boards of several scientific journals, among them "Artificial Intelligence", "Evolutionary Computation", "Theoretical Computer Science", and the "Journal of Complexity".

Host: Prof. Dr. Tobias Friedrich