

Einladung zum Würzburger Mathematischen Kolloquium

Julius-Maximilians-Universität Würzburg • Fakultät für Mathematik und Informatik

Juniorprof. Dr. Barbara Zwicknagl

Julius-Maximilians-Universität Würzburg

Quest for the best: From pattern formation to "optimal" reconstruction

Antrittsvorlesung

Mittwoch, 10. Mai 2017 • 16:15 Uhr

Raum SE 40, Mathematik Ost, Emil-Fischer-Str. 40, Campus Hubland-Nord

Inhaltsangabe:

In this talk, I will discuss two variants of the mathematical "quest for the best", namely regularized function reconstruction with applications to data science, and variational models for pattern formation in solids. The common feature of these problems is that the "best" solution is characterized as a minimizer of an (energy) functional with competing terms which is defined on all possible configurations. In function reconstruction, such functionals typically penalize data misfit and complexity. In the variational modeling of pattern formation, they often contain for example elastic and surface energy terms. I will focus on two particular problems that fit into this general framework. The first one deals with regularized function reconstruction from scattered point values. The second one addresses microstructures in low-hysteresis shape memory alloys.



www.mathematik.uni-wuerzburg.de/kolloquium.html

Zu diesem Vortrag laden wir Sie herzlich ein.
Im Anschluss an den Vortrag findet ein Stehempfang statt.



Die Dozentinnen und Dozenten der Mathematik