



Fakultät für Mathematik und Wirtschaftswissenschaften Institut für Stochastik

Professor Dr. Volker Schmidt

Helmholtzstraße 18 89081 Ulm, Germany

Tel: +49 731 50-23532 Fax: +49 731 50-23649 volker.schmidt@uni-ulm.de http://www.uni-ulm.de/stochastik/

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Universität Ulm | 89069 Ulm | Germany

Einladung zum Vortrag

von

Dr. Ondrej Sedivy

Czech Academy of Sciences, Prague

3D reconstruction of grains in polycrystalline materials using nonconvex tessellation models

A method for fitting the morphology of grains in an AlMgSc alloy by a nonconvex tessellation model, which is capable of reliable reconstruction of individual grain boundaries, is presented. In addition, adequate preprocessing of the experimental data, which is acquired by 3D electron backscatter diffraction, is described. This involves correct alignment of the serial sections, with emphasis on possible morphological anisotropy, and identification of the grains based on a two-step clustering algorithm.

A very good fit of the model is achieved using a Monte-Carlo based optimization technique known as simulated annealing, which sequentially improves the agreement to the observed microstructure up to the desired level of precision.

Termin: Dienstag, 18. August 2014, 10:00 Uhr

Ort: Universität Ulm, Helmholtzstr. 18, Raum 2.20

Der Vortrag findet im Rahmen unseres Forschungsseminars statt. Alle Interessenten sind herzlich eingeladen.

gez. V. Schmidt