

סמינר - SEMINAR

הנדך מוזמנות להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום ב' 19.06.2017 (כה' בסיון, תשע"ז), בבניין דן קאהן, אודיטוריום 1, 14:30.

ירצה:

Prof. Stefan Sandfeld

Chair of Micromechanical Materials Modelling (MiMM)
Institute of Mechanics and Fluid Dynamics TU Bergakademie Freiberg
Germany

על הנושא:

A multiscale language for dislocation microstructure for data-driven materials science

The seminar will be given in English

להלן תקציר ההרצאה:

For nearly a century, materials scientists have been seeking to understand how dislocation systems evolve. In-situ microscopy now reveals complex dislocation networks in great detail. However, without a sufficiently versatile and general methodology for extracting, assembling and compressing dislocation-related information the analysis of such data often stays at the level of “looking at images” to identify mechanisms or structures. Simulations are increasingly capable of predicting the evolution of dislocations in full detail. Yet, direct comparison, automated analysis or even data transfer between small scale plasticity experiments and simulations is impossible, and a large amount of data cannot be reused.

I will introduce my vision of a unifying multiscale language of dislocation microstructures. This description of dislocations allows for a completely new type of high-throughput data mining and analysis, tailored to the specifics of dislocation systems. This data-driven approach links models and experiments on different length scales thereby guaranteeing true interoperability of simulation and experiment.

מאת: פרופ"מ דן מרדכי

בברכה,

פרופ"מ שאול אולובסקי
מרכז הסמינרים