NEW YORK CITY COLLEGE OF TECHNOLOGY
Physics Department
Center for Theoretical Physics

An information theoretic approach to quantify complexity of nanoscale systems

Presented by:

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Abstract

In this study the entropy density and mutual information measures were used to identify the optimal interaction parameters between nanoparticles, which lead to the maximum geometric complexity of self-assembled nanostructures. A generalization of complexity measures at a finite temperature and for nonequilibrium systems is also presented. The developed theory can be used for efficient in silico design of new self-assembled nanostructures with a complex geometry not achievable before.

Light refreshments will be served.