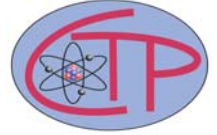




NEW YORK CITY COLLEGE OF TECHNOLOGY
Physics Department
Center for Theoretical Physics



An information theoretic approach to quantify complexity of nanoscale systems

Presented by:

Dr. Ilya Grigorenko

**New York City College of Technology of CUNY
Brooklyn, NY**

**Thursday, March 24 at 12:00 PM
Namm, Room 823**

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.