



The Hong Kong University of Science and Technology

Department of Mathematics

Seminar on Applied Mathematics

**On the Cauchy-Born approximation: with
finite temperature and with dilute defects**

by

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Abstract

Constitutive relation is one of the most important properties of materials. Either experiments or massive simulations were needed to get such material properties. Cauchy-Born (CB) rule bridges the atomistic and continuum models, which allows one to evaluate constitutive relation without MD or MC simulations, as long as a potential is provided. In this talk, I will introduce our recent work on the efforts of effectively evaluating material constitutive relations. It can be considered as generalization of traditional Cauchy-Born approximation, which only works for perfect system at zero-temperature.

Date: Tuesday, 5 June 2018

Time: 4:00p.m. – 5:00p.m.

**Venue: Room 3472, Academic Buildings
(Lifts 25, 26), HKUST**

All are welcome!