



# THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

Summer Research Program 2022

## PG STUDENT SEMINAR

**Analysis of Peierls-Nabarro (PN) model with gamma-surface**

By

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### Abstract

In this seminar, we will review Peierls-Nabarro (PN) model with gamma-surface, which is a continuum model for dislocations. Dislocations are line defects in crystalline materials and the dislocation theory is essential to understand the plastic deformation properties. Then we will present our research on convergence from atomistic model to PN model in complex lattice and stochastic PN model in high-entropy alloys with short range order.

**Date : 8 July 2022 (Friday)**

**Time : 11:00am**

**Zoom Meeting : <https://hkust.zoom.us/j/99540439142> (Passcode: 945454)**

*All are Welcome!*