

Title: Minimal configurations for Frenkel-Kontorova model on a quasicrystal

Abstract: The Frenkel-Kontorova model is a physical model that is mathematically simple to describe and universal in the sense that it can be used to describe several underlying physical concepts. It was originally introduced in 1938 to represent the structure and dynamics of a crystal lattice in the vicinity of a dislocation core. It models a chain of classical particles coupled to their neighbors and subjected to an external potential. In this talk, I will present an overview of some known properties and open questions concerning equilibrium configurations when the external potential is induced by a quasicrystal.