

abstract

MATHEMATICAL PHYSICS

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

A metal or ceramic is naturally decomposed into cells called "grains". The geometry of this cell complex influences the properties of the material. Some interesting mathematical problems arise in trying to understand the time evolution of these grains. In 1952, Von Neumann gave a simple formula for the growth rate of a grain in 2 dimensions, which has been used as the basis for much of the work on grain evolution. This formula will be generalized to 3 (and higher) dimensions (joint work with David Srolovitz).