

1145-65-1906

**Christian Ratsch\*** ([cratsch@math.ucla.edu](mailto:cratsch@math.ucla.edu)), 460 Portola Plaza, Suite 1158, Los Angeles, CA 90095-7121. *Mound Formation during Epitaxial Growth studied by Kinetic Monte Carlo and Island Dynamics Simulations.*

In this talk we will discuss how to model epitaxial growth using kinetic Monte Carlo (KMC) simulations as well as an Island Dynamics model that employs the level set method. We will focus on the formation of so-called mounds that result from the presence of a step edge barrier (that induces an uphill current). The slopes of these mounds are stabilized by a downward transport mechanism. We study two different downward transport mechanisms, referred to as downhill funneling and transient mobility. Our results show how the scaling exponents that are associated with mound formation depend on the model parameters. (Received September 24, 2018)