

“Atomic Scale Studies of Heterophase Interfaces”

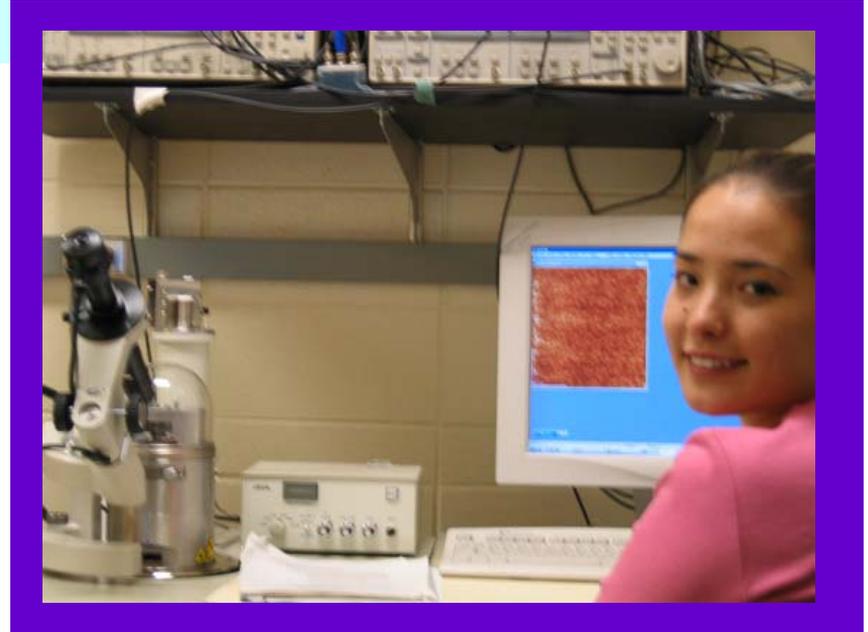
Professor David N. Seidman

Northwestern University, DMR Award# 0241928

◆ Current post-graduate research

participants: 2 graduate students performing **experiments** (Chantal Sudbrack, Kevin Yoon), and half-time research associate (Dieter Isheim). 1 research associate performing **simulation /theory** (Zugang Mao)

◆ In the past 18 months, 10 undergraduate **REU** and **work-study students** participated in **experiments** (Luis de la Cruz, Nick Disabato, Ariel Knowles, Anna Jozwik, Brian Pasquini, Michael Weinstock, Jessica Weninger, Tiffany Ziebell), and participated in the **development of software code, ADAM**, for analysis of three-dimensional atom probe data (Justin Pelzer, Tai Young)



Junior undergraduate student, Tiffany Ziebell, images nanoscale precipitates in nickel based superalloys employing atomic force microscopy.

OUTREACH

- ◆ Development of a program, Cahn Man, to simulate Cahn-Hilliard's theory of spinodal decomposition. Used for **teaching sophomores and juniors phase transformations** at NU.
- ◆ Development of a program, kSan, **to teach simple crystallography and atomic structure of grain boundaries**. Used by sophomores, juniors, and graduate students.
- ◆ **Involved Evanston Township High School students** in the development of a software code, ADAM, for analyzing three-dimensional atom probe data.