Benjamin Schroeder

Dept. / Major: *University of Utah, Chemical Engineering*

Field of Study: *Validation & Uncertainty Quantification, Chemical Systems Modeling*

Year in School: *3rd year grad student*

Degree Being Pursued: *Ph.D.*

Date Expected: *Spring 2015*

Academic Advisor: *Sean Smith, Assistant Professor*

Email: *benjamin.schroeder@utah.edu*

Degree(s) held: *B.S., Bioproducts and Biosystems Engineering, University of Minnesota*

Field(s) of Interest: *validation and uncertainty quantification, computational modeling of physical phenomena related to chemical processes, particle dynamics, Gaussian processes, surrogate models, population balance*

Planned Years in the PSAAP II Program: *2014-2015*

Year in the PSAAP II Program: *1*

Description of Your Work/Project Within PSAAP II:
Preparations for the validation and uncertainty quantification aspects for the Carbon Capture Multidisciplinary Simulation Center team (Gaussian process regression, consistency measures, surrogate models, etc.)

NNSA Laboratory Visit Information:
Investigating validation and uncertainty quantification applications in the context of computational physics modeling with Rich Hills within Walt Witkowski's group at Sandia National Lab in Albuqurque, NM.

Selected Publications:
Schroeder, B.B., Harris, D.D., Smith, S.T., Lignell, D.O. (2014) Theoretical Framework for Multiple-Polymorph Precipitation in Highly Supersaturated Systems, Crystal Growth & Design, 14, 1756-1770. DOI:10.1021/cg401892b.

Date Updated: June 19, 2014