Computational Transport & Reaction Workshop

2:30PM – 5:30PM **Sunday, March 17th** **Location: Royal Suite**

Organizers: Leo Hwang (COMSOL, Inc.), Patrick L. Mills (Texas A&M Kingsville) and Benjamin A. Wilhite (Texas A&M College Station)

Summary: Aimed at fostering the use of computational fluid dynamic (CFD) tools in the design and analysis of reacting systems, this workshop features scientific and technical presentations illustrating the impact of CFD tools upon catalyst and reactor design and their growing importance in the development of reactor technologies as well as education and training.

Schedule

I. An Overview of CFD in CRE: History, Impact and Potential (2:30 – 3:00 PM)
Patrick Mills, Texasa A&M University, Kingsville

The development and impact of CFD tools in catalysis and reaction engineering will be reviewed to illustrate the capabilities, limitations and potential of CFD for addressing emerging industry and research challenges.

II. Computational Methods (3:00 – 4:00 PM)
Leo Hwang, COMSOL Inc.

An overview of COMSOL Multiphysics®: its capabilities, functionality, features, and graphical user interface. A live demonstration will offer a fundamental base for working with COMSOL to create a simple chemical reaction engineering model.

III. Exercises (4:00– 5:30 PM)

Attendees will have a choice between two tutorials, provided by COMSOL, Inc. for demonstrating how COMSOL Multiphysics® can be used to simulate the behavior of catalytic reactors for either research or educational purposes.