

Weekly CEAFM Seminar: Fall 2015



JOHNS HOPKINS Center for Environmental & Applied Fluid Mechanics

Date: **Friday, September 25, 2015**
Time: 11:00 AM
Location: Gilman Hall # 132
Speaker: **Prof. Kirsten Koehler** (Johns Hopkins School of Public Health)
Title: ***"A Role for Fluid Dynamics in Public Health Research"***

Abstract

Environmental health researchers ask questions about the ways our environment (air, food, water, social stressors, etc.) influence health. When considering a chemical stressor, a key element is to quantify the amount of a stressor we encounter, how much enters the body, and how much makes it to a target organ system. Exposure scientists are concerned with estimating an individual's or population's exposures to hazardous species in air, water, and food. Personal measurements are considered the gold standard, but it is not always feasible to conduct personal monitoring. Modeling efforts have been undertaken to help quantify exposures accounting for variability in space and time. Such estimates of exposure can be paired with health data to evaluate the relationships between a hazard and an adverse health outcome or disease. This presentation will outline existing methods and opportunities for fluid dynamics to improve exposure assessment.