Abstract Submitted for the DPP11 Meeting of The American Physical Society

**Computer Model Calibration Using Outputs From Multi Fidelity Simulators** JOSLIN GOH, DEREK BINGHAM, Simon Fraser University, JAMES PAUL HOLLOWAY, MIKE J. GROSSKOPF, FORREST W. DOSS, University of Michigan, ERICA RUTTER, CAROLYN C. KURANZ, University of Michigan — In some experiments, there are multiple computer codes that can be used to describe a physical process of interest. In this work, we consider a statistical model that combines data from field experiments and multiple computer simulations to calibrate parameters of interest and make prediction in the physical system. Our approach is Bayesian and will be illustrated through a simple example and CRASH experiment with outputs from multiple simulators.

> Joslin Goh Simon Fraser University

Date submitted: 13 Jul 2011

Electronic form version 1.4