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**Operational Modeling of Emerging
Viral Infectious Diseases**

**Monday
September 24, 2012
4:10-6PM
in Dow 1005**

With the aim to contain viral infectious outbreaks as quickly as possible, researchers have used simulation models to test combinations of mass-action and individual-based strategies in small localities, urban areas, rural areas, countries, and intercontinental areas. Results from the simulation models have been used to inform national scientific committees and prepare national preparedness guidelines. Though simulation models are generally perceived to be useful in supporting public health preparedness, existing models are unable to adequately support operational decisions that are required every 4 to 6 hours during an outbreak. In this seminar, we discuss the challenges for operational adaption of simulation models, using Pandemic Influenza as a case study. In addition, we will discuss very recent contributions to the field of operational modeling.

Dr. Diana Prieto is an Assistant Professor in the Department of Industrial and Manufacturing Engineering at Western Michigan University. She holds an M.A. in Statistics and a Ph.D. in Industrial Engineering from the University of South Florida. Her research focuses on developing innovative modeling frameworks to support public health policymaking. She currently works on the identification and evaluation of methods for operational implementation of influenza spread simulation models. She has shared her research findings with a national workgroup to identify the requirements for an operational epidemiological modeling process during disaster response. This workgroup is organized by the Yale New Haven Center for Emergency Preparedness and Disaster Response (YNH-CEPDR), and sponsored by the United States Northern Command (USNORTHCOM).

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