

# **Technological Lectures**

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DISEG - Dipartimento di Ingegneria dei Sistemi Edilizi e Territoriali

Seminari tecnologici integrati per gli studenti del corso di Laurea Magistrale in Ingegneria **Edile e Civile** 

#### INCORPORATING RECOVERY INTO ECONOMIC ANALYSIS OF DISASTERS

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### Abstract

In current practice, economic analysis of disaster risk reduction often neglects time-dependent losses such as business interruption and income losses that accrue over time during post-disaster recovery. This paper argues that incorporating time-dependent losses is critical to making investment decisions that foster disaster resilience. Drawing from previous empirical and modeling work, the paper argues that incorporating economic impacts of short-term service outage and restoration is relatively straightforward and can be readily accomplished under certain assumptions -- most notably, assumptions of stable economic structure. Economic recovery is complex and highly contextdependent, however, and will remain very challenging to model, particularly for catastrophic events. To illustrate these points, examples are drawn from several cases in the U.S., Japan, and New Zealand.

DATE: Thursday, APRIL 21, 2016

TIME: 12:00 pm LOCATION: AULA ALBENGA, 3rd Floor, DISEG, Politecnico di Torino Faculty, graduate students, and all others are invited to attend. Gian Paolo Cimellaro

#### **BIOGRAPHICAL SKETCH**



Dr. Chang is a professor at the University of British Columbia, Canada, with the School of Community and Regional Planning (SCARP) and the Institute for Resources, Environment, and Sustainability (IRES). She has held a Canada Research Chair in Disaster Management and Urban Sustainability (Tier 2, 2004-2013). Dr. Chang has published extensively on the socio-economic impact of natural disasters, modeling disaster losses, urban risk dynamics, critical infrastructure systems and interdependencies, economic evaluation of disaster mitigations, and disaster recovery. She has served on the U.S. National Research Council's Committee on Disaster Research in the Social Sciences and its Committee on Earthquake Resilience – Research, Implementation, and Outreach, as well as on the editorial board of Earthquake Spectra. She is a past recipient of two awards from the Earthquake Engineering Research Institute (EERI): the Shah Family Innovation Prize in 2001 and the Distinguished Lecturer award in 2011.