



New York - Northeast

2010-11, 2016 NEW ZEALAND EARTHQUAKES

Relevance to NYC and US Critical Infrastructure

Assessment, Lessons, Planning, Reconstruction, and Code Modifications



EARTHQUAKE ENGINEERING RESEARCH INSTITUTE

Dedicated to Reducing Earthquake Risk
Learning from Earthquakes

The Mini-Symposium will have 2 parts: (1) A series of four talks by the foremost seismic experts involved in the 2010-11 Canterbury earthquake sequence and the 2016 Kaikoura, NZ earthquake in the fields of infrastructure and liquefaction assessment, reconstruction planning, rebuild, and code modifications; (2) a panel of international and NYC code seismic experts will discuss with the speakers key aspects of the NZ practice modifications and implementations as they relate to protection and resiliency of the critical infrastructure of our metropolis and our nation at large.

GEOTECHNICAL EXTREME EVENTS RECONNAISSANCE

Turning Disaster into Knowledge

Sponsored by the NSF

SPEAKERS



Prof. Tom O'Rourke, PhD, Cornell University
Th. R. Briggs Professor, Dist.M.ASCE, FREng, NAE

"In the new normal for natural disasters, we should reassess and identify critical infrastructure that is „too big to fail“, and the risk related to it, and subsequently form local coalitions to protect it using punctuated resilience against what is possible and beyond what is probable."

Thomas D. O'Rourke
Cornell University



Prof. Jonathan Bray, PhD, UC Berkeley
Faculty Chair in Earthquake Engineering Excellence, PE, F. ASCE, NAE

"Rarely has detailed information about lifeline and building performance been available to the degree that exists for Christchurch where liquefaction effects of several earthquakes are documented in a comprehensive way. Data on the Canterbury sequence provide a unique understanding for advancing an integrated examination of the impacts of liquefaction on critical infrastructure in the USA."

Jonathan D. Bray
UC Berkeley



Prof. Brendon Bradley, PhD, Univ. of Canterbury, New Zealand
Deputy Director, QuakeCoRE: NZ Centre for Earthquake Resilience

"The 2016 Kaikoura event was an urgent reminder that "the question is not whether earthquakes happen, but how prepared and resilient we are when they do. Lessons learnt need to be implemented towards resilience, especially regarding critical infrastructure and lifeline networks."

Brendon A. Bradley
Univ. Canterbury, NZ

Prof. Ellen Rathje, PhD, UT Austin, Warren S. Bellows Centennial Professor, PE, F. ASCE
Principal Investigator, DesignSafe resource-sharing platform for natural hazards engineering

"We are bringing together our expertise in engineering and information technology to develop the best tools to help engineers better understand the impact of natural hazards on our cities and infrastructure. There is tremendous potential to save lives and property through better engineering, design and planning."



Ellen M. Rathje
Univ. of TX Austin



REGISTER TODAY by email at nyne@eeri.org

Thursday February 2, 2017 3:30 - 7:30 pm

The General Society of Mechanics & Tradesmen

20 W.44th St. (bet. 5th and 6th Aves.), New York, NY 10036

Attendance is FREE for all

4 PDH/AIA credits

Cost for PDH certificates: free for EERI members, \$25/PDH for non-EERI members



PANELISTS



Prof. Mary Comerio, UC Berkeley
President of EERI

"We need to reach out to and collaborate with other professions whose work can influence long-range policies for seismic safety and hazard assessment. We need to focus on the challenges of "resilient cities" and focus on technical and policy issues needed to make our cities robust, sustainable and safe. After devastating earthquakes in recent years in China, Haiti, NZ, Italy, Chile and Japan, we have much to learn from these events and from our colleagues around the globe."

Mary Comerio
UC Berkeley

Prof. Andrew Whittaker, PhD, University at Buffalo, PE, SE, F.SEI, F.ASCE, F. ACI
Director, MCEER, SEAoNY Code Committee Expert

"The exposure of New York City to catastrophic losses (repairs, business interruption, and casualties) in the event of a significant earthquake, such as the 2011 M5.8 Mineral, Virginia event, is high. Such an earthquake would trigger substantial damage to buildings and infrastructure. Damaged infrastructure and collapsed buildings slow response and recovery and prevent re-occupation. Much work is needed to characterize the earthquake risk in the City, and then to rehabilitate buildings and infrastructure to achieve yet-to-be determined performance goals."



Andrew Whittaker
Univ. at Buffalo



David Wald, PhD, USGS National Earthquake Information Center
Coordinator, USGS Real-Time Earthquake Information R&D

"Earthquake information systems are critical for response, yet also for planning and resilience. The financial relief component of earthquake resilience, an ongoing discussion, often relies on such near-real-time information. Healthy mechanisms for disaster financing, arising from capital/traditional insurance markets, linked to strong provision of scientific information, can be critical resources for holistic community-wide risk-mitigation strategies."

David Wald
USGS

Ramon Gilsanz, Gilsanz Murray Steficek, PE, SE, F.SEI, F.ASCE
Chair, 2014 NYC Build. Code Tech. Committee

"Safety is what structural engineers should focus on, using the least minimum requirements in terms of material while also being true to helping people express their ideas – but ultimately the buildings need to be safe. We're enablers, we enable things to happen by helping actualize the ideas of others."



Ramon Gilsanz
GMS



Sissy Nikolaou, PhD, WSP|Parsons Brinckerhoff, PE, F.ASCE
Principal, Multi-Hazards & Geotechnical Engineering, Chair, 2014 NYC Seismic Code Tech. Committee

"Extreme events are rare and occur when hardly anticipated with potentially disastrous impacts on our built environment and lives. Urban centers that rely heavily on their infrastructure are particularly vulnerable, as we were urgently reminded during Hurricane Sandy in NYC, the Christchurch sequence, and most recently the 2016 Muisne, Ecuador earthquake."

Sissy Nikolaou
WSP | PB

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