

CIVIL ENGINEERING & ENGINEERING MECHANICS

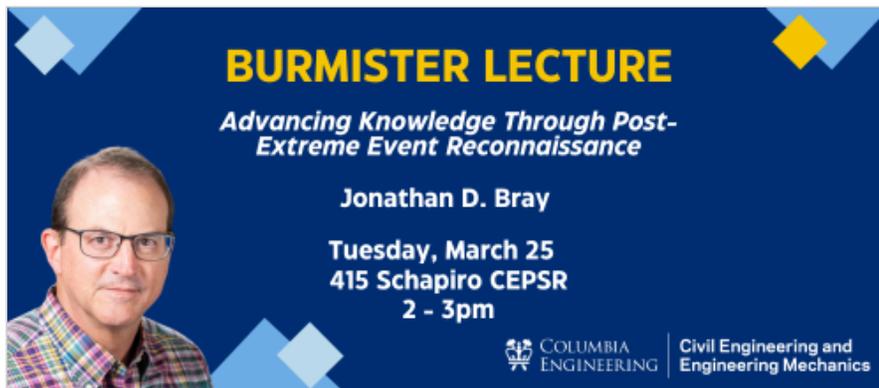
[Home](#) » [Events](#) » [Burmister Lecture | Jonathan D. Bray | University of California, Berkeley](#)

Events

CURRENT AND UPCOMING

Burmister Lecture | Jonathan D. Bray | University of California, Berkeley

Add to Calendar: [Google](#) [Yahoo](#)



March 25, 2025

 2:00 PM - 3:00 PM

Event time is displayed in your time zone.

 Mudd Hall, 500 W. 120 St., New York, NY 10027 Room/Area: 7th floor Conference Room

Advancing Knowledge Through Post-Extreme Event Reconnaissance

Advancing hazard-resistant design demands an understanding of what happens when a disaster occurs. Documenting and sharing the key lessons learned from extreme events contributes significantly to advancing research and practice in hazards engineering. Unanticipated observations from major events often define new research directions. As an example, the recent studies of the liquefaction of fine-grained soil have been largely motivated by observations in post-earthquake reconnaissance efforts.

Field observations are particularly important in geotechnical engineering because it is difficult to replicate in the laboratory the response of soil deposits built by nature over thousands of years. Detailed mapping and surveying of damaged and undamaged areas provides the data for the well-documented field case histories that drive the development of many of our design procedures.

Data must be collected quickly and completely before it is lost. Systematic collection of quantitative data is required. Technologies, such as LiDAR, Structure-from-Motion (SfM), and UAVs, can capture ground deformation and its effects. Important advancements are possible through research of natural disasters if their effects are captured and shared effectively.



Jonathan D. Bray

Jonathan Bray, Ph.D., P.E., NAE is the Faculty Chair in Earthquake Engineering Excellence at the University of California, Berkeley. Dr. Bray is a registered professional civil engineer and has served as a consultant on important engineering projects and peer review panels. He has authored more than 450 research publications on topics that include liquefaction and its effects on structures, seismic performance of earth structures, earthquake ground motions, and earthquake fault rupture propagation. He created and led the Geotechnical Extreme Events Reconnaissance (GEER) Association. Dr. Bray is a member of the US National Academy of Engineering and has received several honors, including the H. Bolton Seed Medal, Terzaghi Award, Ishihara Lecture, Peck Award, Joyner Lecture, Middlebrooks Award, Huber Research Prize, Packard Foundation Fellowship, and NSF Presidential Young Investigator Award.

Contact Information

Scott Kelly

212-854-3219

stk2110@columbia.edu

REGISTER 
