

PREFACE

The California Strong Motion Instrumentation Program (CSMIP) in the California Geological Survey of the California Department of Conservation established a Data Interpretation Project in 1989. Each year CSMIP funds several data interpretation contracts for the analysis and utilization of strong-motion data. The primary objectives of the Data Interpretation Project are to further the understanding of strong ground shaking and the response of structures, and to increase the utilization of strong-motion data in improving post-earthquake response, seismic code provisions and design practices.

As part of the Data Interpretation Project, CSMIP holds annual seminars to transfer recent research findings on strong-motion data to practicing seismic design professionals, earth scientists and post-earthquake response personnel. The purpose of the annual seminar is to provide information that will be useful immediately in seismic design practice and post-earthquake response, and in the longer term, useful in the improvement of seismic design codes and practices. Proceedings and individual papers for each of the previous annual seminars are available at <http://www.conservation.ca.gov/cgs/smip/seminar> in PDF format. Due to State budget constraints, CSMIP did not hold an annual seminar in 2010 or 2011. The SMIP24 Seminar is the thirty-third in this series of annual seminars.

The SMIP24 Seminar is divided into two sessions in the morning and two sessions in the afternoon. There are eight presentations in total; seven are on the results of CSMIP-funded projects. The sessions in the morning include four presentations. The first session will focus on ground response topics. Professor Abrahamson of UC Berkeley will present on a period-dependent duration model for California. He will be followed by a presentation from Professor Stewart of UC Los Angeles on the application of HVSR for ergodic site response modeling in California. The second session will also include presentations on ground response topics. Professor Miranda of Stanford University will present on the effect of focal mechanism on the directionality of horizontal ground motion intensity. He will be followed by a presentation from Professor Olsen of San Diego State University on the near-surface seismic structure of the SCEC Community Velocity Model.

The sessions in the afternoon include four presentations. The third session will focus on structural response topics. Professor Mosalam of UC Berkeley will present on the use of neural networks in structural response prediction. He will be followed by a presentation from Professor Bernal of Northeastern University on inherent damping of structures during nonlinear seismic response. The last session will include presentations on both structural and lifeline response topics. Professor Becker of UC Berkeley will present on the seismic performance of bridges with pier walls. She will be followed by a presentation from Dr. Ghahari of CSMIP on the application of earthquake early warning for tall buildings. Individual papers and the proceedings are available for download by the SMIP24 participants at the provided link and will be available at the CSMIP website in the future.

Daniel Swensen
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Appreciation to Members of the Strong Motion Instrumentation Advisory Committee

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Farzad Naeim, Chair, Farzad Naeim, Inc.
Norman Abrahamson, UC Berkeley
Bruce Clark, Leighton & Associates
Martin Eskijian, California State Lands Commission
David Gutierrez, GEI Consultants
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Data Utilization Subcommittee

Representatives from each Subcommittee