

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 the State budget restraints, CSMIP did not hold an annual seminar in 2010 or 2011. The SMIP18 Seminar is the twenty-seventh in this series of annual seminars.

The SMIP18 Seminar is divided into two sessions in the morning and two sessions in the afternoon. There are seven presentations on the results from CSMIP-funded projects and one presentation by CSMIP. The sessions in the morning include four presentations. The first session will focus on ground motions. Professor Archuleta of UC Santa Barbara will present on strong ground motions from earthquakes with multiple faults. It will be followed by a presentation by Professor Stewart of UCLA on reconsidering basin effects in ergodic site response models. The second session will focus on results from building response data: building code accidental torsion provisions for buildings with symmetric plans by Professor Zareian of UC Irvine and building soil-structure interaction mechanisms by Professor Asimaki of Caltech.

The third session in the afternoon will focus on lifeline structures. Professor Armstrong of CSU Sacramento will present on earthquake-induced earth dam deformations. Professor Elgamal of UC San Diego will present on the seismic response of bridge-ground systems. The last session will include presentations on building damage detection using cumulative absolute velocity by Professor Mosalam of UC Berkeley, and the instrumentation of two new super tall buildings in California by Dr. Huang of CSMIP. Individual papers and the proceedings are available for the SMIP18 participants in a USB flash drive, and will be available at the CSMIP website.

Daniel Swensen
CSMIP Data Interpretation Project Manager

**Appreciation to Members of the
Strong Motion Instrumentation Advisory Committee**

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