

Bulletin of the Seismological Society of America

Volume 104 • Number 5 • October 2014

Contents

Ⓔ indicates that online material is available in the electronic edition of BSSA

Articles

- The 1531 Lisbon Earthquake: A Tsunami in the Tagus Estuary? 2149
M. A. Baptista, J. M. Miranda, and J. Batlló
- The 2001–Present Induced Earthquake Sequence in the Raton Basin of Northern New Mexico and Southern Colorado 2162 Ⓔ
Justin L. Rubinstein, William L. Ellsworth, Arthur McGarr, and Harley M. Benz
- Limited Dynamic Earthquake Triggering in the Socorro Magma Body Region, Rio Grande Rift, New Mexico 2182
Emily A. Morton and Susan L. Bilek
- Mysterious Tremor-Like Signals Seen on the Reelfoot Fault, Northern Tennessee 2194
Blaine M. Bockholt, Charles A. Langston, Heather R. DeShon, Steven Horton, and Mitch Withers
- A Low-Dispersive Symplectic Partitioned Runge–Kutta Method for Solving Seismic-Wave Equations: I. Scheme and Theoretical Analysis 2206
Xiao Ma, Dinghui Yang, Guojie Song, and Meixia Wang
- The Role of the Rotational Inertia on the Seismic Resistance of Free-Standing Rocking Columns and Articulated Frames 2226
Nicos Makris
- A Study of the Sensitivity of Response Spectral Amplitudes on Seismological Parameters Using Algorithmic Differentiation 2240
Christian Molkenthin, Frank Scherbaum, Andreas Griewank, Nicolas Kuehn, and Peter Stafford
- Coherence of Teleseismic *P* and *S* waves across the Transportable Array 2253
Charles A. Langston
- Overtone Interference in Array-Based Love-Wave Phase Measurements 2266
Anna Foster, Meredith Nettles, and Göran Ekström
- Geophysical Constraints on the Seismotectonics of the Sikkim Himalaya 2278
B. R. Arora, Sanjay K. Prajapati, and C. D. Reddy
- Application of Horizontal-to-Vertical Spectral Ratios of Earthquake Ground Motions to Identify Subsurface Structures at and around the K-NET Site in Tohoku, Japan 2288
Fumiaki Nagashima, Shinichi Matsushima, Hiroshi Kawase, Francisco J. Sánchez-Sesma, Takashi Hayakawa, Toshimi Satoh, and Mitsutaka Oshima

The Stress State of the Northwest Geysers, California Geothermal Field, and Implications for Fault-Controlled Fluid Flow <i>Katie Boyle and Mark Zoback</i>	2303
A V_{S30} Map for California with Geologic and Topographic Constraints <i>E. M. Thompson, D. J. Wald, and C. B. Worden</i>	2313 (E)
Imaging P and S Attenuation in the Sacramento–San Joaquin Delta Region, Northern California <i>Donna Eberhart-Phillips, Clifford Thurber, and Jon B. Fletcher</i>	2322 (E)
Influence of the V_S Profiles beyond 30 m Depth on Linear Site Effects: Assessment from the KiK-net Data <i>Julie Régnier, Luis Fabian Bonilla, Etienne Bertrand, and Jean-François Semblat</i>	2337
Three-Dimensional Seismic-Velocity Model for the Unconsolidated Mississippi Embayment Sediments from H/V Ambient Noise Measurements <i>Charles A. Langston and Stephen P. Horton</i>	2349
Magnitude Limits of Subduction Zone Earthquakes <i>Yufang Rong, David D. Jackson, Harold Magistrale, and Chris Goldfinger</i>	2359
Moment Magnitude–Rupture Area Scaling and Stress-Drop Variations for Earthquakes in the Mediterranean Region <i>K. I. Konstantinou</i>	2378 (E)
A Generalization of the Double-Corner-Frequency Source Spectral Model and Its Use in the SCEC BBP Validation Exercise <i>David M. Boore, Carola Di Alessandro, and Norman A. Abrahamson</i>	2387
The Destiny of a Clast within a Molten Pseudotachylite Vein <i>Andrea Bizzarri</i>	2399
A Study of Microseisms Induced by Typhoon Nanmadol Using Ocean-Bottom Seismometers <i>Jing-Yi Lin, Tzu-Chuan Lee, Hsin-Sung Hsieh, Yen-Fu Chen, Yi-Chin Lin, Hsin-Hua Lee, and Yi-Ying Wen</i>	2412
Performance of an Optical Seismometer from 1 μ Hz to 10 Hz <i>Jonathan Berger, Peter Davis, Rudolf Widmer-Schmidrig, and Mark Zumberge</i>	2422
Site Effects and Peak Ground Accelerations Observed in Guadalajara, Mexico, for the 9 October 1995 M_w 8 Colima–Jalisco, Earthquake <i>M. Chavez, S. Garcia, E. Cabrera, M. Ashworth, N. Perea, A. Salazar, E. Chavez, J. Saborio-Ulloa, and J. Saborio-Ortega</i>	2430 (E)
An Efficient Algorithm to Identify Strong-Velocity Pulses in Multicomponent Ground Motions <i>Shrey K. Shahi and Jack W. Baker</i>	2456 (E)
A Study of Site Effects in Ilan, Taiwan, Based on Attenuation Relationships of Spectral Acceleration <i>Kun-Sung Liu, Yi-Ben Tsai, Chien-Hsin Chang, and Po-Shen Lin</i>	2467 (E)
Assessment of Coherency for Bidirectional Horizontal Ground Motions and Its Application for Simulating Records at Multiple Stations <i>H. P. Hong and T. J. Liu</i>	2491
Evaluation of Site Effects on Strong-Motion Records in Concepción during the 2010 Maule, Chile, Earthquake <i>Saburoh Midorikawa, Hiroaki Yamanaka, Kosuke Chimoto, Rafael Riddell, Hiroyuki Miura, and Koichiro Saguchi</i>	2503

Test of Goodness of the NGA Ground-Motion Equations to Predict the Strong Motions of the 2012 Ahar–Varzaghan Dual Earthquakes in Northwestern Iran <i>Mehdi Mousavi, Hamid Zafarani, Sahar Rahpeyma, and Alireza Azarbakht</i>	2512
Relation of Landslides Triggered by the Kiholo Bay Earthquake to Modeled Ground Motion <i>Edwin L. Harp, Stephen H. Hartzell, Randall W. Jibson, Leonardo Ramirez-Guzman, and Robert G. Schmitt</i>	2529
Path Durations for Use in the Stochastic-Method Simulation of Ground Motions <i>David M. Boore and Eric M. Thompson</i>	2541
Application of Seismic Array Processing to Earthquake Early Warning <i>L. Meng, R. M. Allen, and J.-P. Ampuero</i>	2553
Comment and Reply	
Comment on “Estimation of Ground Motion in Mexico City from a Repeat of the $M \sim 7.0$ Acambay Earthquake of 1912” by S. K. Singh, A. Iglesias, M. Ordaz, X. Pérez-Campos, and L. Quintanar <i>Max Suter</i>	2562
Reply to “Comment on ‘Estimation of Ground Motion in Mexico City from a Repeat of the $M \sim 7.0$ Acambay Earthquake of 1912’ by S. K. Singh, A. Iglesias, M. Ordaz, X. Pérez-Campos, and L. Quintanar” by M. Suter <i>S. K. Singh, A. Iglesias, M. Ordaz, X. Pérez-Campos, and L. Quintanar</i>	2565
Short Notes	
Phase-Weighted Stacking Applied to Low-Frequency Earthquakes <i>Clifford H. Thurber, Xiangfang Zeng, Amanda M. Thomas, and Pascal Audet</i>	2567
Green’s Functions for Surface Waves in a Generic Velocity Structure <i>Victor C. Tsai and Sarun Atiganyanun</i>	2573
Three-Dimensional Compressional Attenuation Model (Q_p) for the Salton Trough, Southern California <i>Guoqing Lin</i>	2579 [Ⓔ]
Northeast-Oriented Transpression Structure in the Northern New Madrid Seismic Zone: Extension of a Shear Zone across the Reelfoot Fault Stepover Arm <i>Edward W. Woolery and Ali Almayahi</i>	2587
Velocity Structure of the Saint Elias, Alaska, Region from Local Earthquake Tomography <i>Irina Zabelina, Natalia A. Ruppert, and Jeffrey T. Freymueller</i>	2597
M –log A Models and Other Curiosities <i>Thomas C. Hanks and William H. Bakun</i>	2604
A Review Study of the Source Parameters of the 23 August 2011 M_w 5.7 Virginia Earthquake <i>Dariush Motazedian and Shutian Ma</i>	2611
Shaking from Injection-Induced Earthquakes in the Central and Eastern United States <i>Susan E. Hough</i>	2619
The Rupture Mode of the Shallow Large-Slip Surge of the Tohoku-Oki Earthquake <i>Christopher H. Scholz</i>	2627