

SEISMOLOGICAL RESEARCH LETTERS

Volume 89, Number 2A

Ⓔ indicates that online material is available on the SSA Web site, <http://seismosoc.org>.

FOCUS SECTION

Preface to the Focus Section on Geophysical Networks and Related Developments in Latin America 315

Sergio Barrientos and Xyoli Pérez-Campos

The Mexican National Seismological Service: An Overview 318

Xyoli Pérez-Campos, Víctor Hugo Espíndola, Jesús Pérez, Jorge A. Estrada, Caridad Cárdenas Monroy, Delia Bello, Adriana González-López, Daniel González Ávila, Moisés Gerardo Contreras Ruiz Esparza, Rafael Maldonado, Yi Tan, Iván Rodríguez Rasilla, Miguel Ángel Vela Rosas, José Luis Cruz, Arturo Cárdenas, Fernando Navarro Estrada, Alejandro Hurtado, Antonio de Jesús Mendoza Carvajal, Edgar Montoya-Quintanar, and Miguel A. Pérez-Velázquez Ⓔ

The Northwest Mexico Seismic Network: Real-Time Seismic Monitoring in Northern Baja California and Northwestern Sonora, Mexico 324

J. Antonio Vidal-Villegas, Luis Munguía, J. Alejandro González-Ortega, M. Alejandra Nuñez-Leal, Erik Ramírez, Luis Mendoza, Raúl R. Castro, and Víctor Wong

The Broadband Seismological Network (RESBAN) of the Gulf of California, Mexico 338

Raúl R. Castro, Antonio Mendoza-Camberos, and Arturo Pérez-Vertti

The Broadband Seismological Network of Veracruz, Mexico: Toward a Regional Seismotectonic Interpretation 345

Francisco Córdoba-Montiel, Arturo Iglesias, Xyoli Pérez-Campos, K. Sieron, Grupo de Trabajo del Servicio Sismológico Nacional, C. Valdés-González, S. K. Singh, and J. F. Pacheco

A Seismic Network for the Valley of Mexico: Present Status and Perspectives 356

Luis Quintanar, A. Cárdenas-Ramírez, D. I. Bello-Segura, V. H. Espíndola, J. A. Pérez-Santana, C. Cárdenas-Monroy, A. L. Carmona-Gallegos, and I. Rodríguez-Rasilla Ⓔ

The Jalisco Seismic Accelerometric Telemetric Network (RESAJ) 363

Francisco Javier Núñez-Cornú, Juan Manuel Sandoval, Edgar Alarcón, Adán Gómez, Carlos Suárez-Plascencia, Diana Núñez, Elizabeth Trejo-Gómez, Oscar Sánchez Mariscal, J. Guadalupe Candelas Ortiz, and Luz María Zúñiga-Medina

TLALOCNet: A Continuous GPS-Met Backbone in Mexico for Seismotectonic and Atmospheric Research 373

E. Cabral-Cano, X. Pérez-Campos, B. Márquez-Azúa, M. A. Sergeeva, L. Salazar-Tlaczani, C. DeMets, D. Adams, J. Galetzka, K. Hodgkinson, K. Feaux, Y. L. Serra, G. S. Mattioli, and M. Miller

OPINION 309

Roland LaForge

NEWS AND NOTES 312

DC CURRENTS 313

MEETING CALENDAR 712

<i>A Dedicated Seismic Early Warning Network: The Mexican Seismic Alert System (SASMEX)</i>	382
Gerardo Suárez, J. M. Espinosa-Aranda, Armando Cuéllar, Gerardo Ibarrola, Armando García, Martín Zavala, Samuel Maldonado, and Roberto Islas 	
<i>The National Seismological Network of Costa Rica (RSN): An Overview and Recent Developments</i>	392
Lepolt Linkimer, Ivonne G. Arroyo, Guillermo E. Alvarado, Mario Arroyo, and Henriette Bakkar 	
<i>Toward an Earthquake and Tsunami Monitoring and Early Warning System for Nicaragua and Central America</i>	399
Wilfried Strauch, Emilio Talavera, Virginia Tenorio, Javier Ramírez, Greyving Argüello, Martha Herrera, Antonio Acosta, and Allan Morales	
<i>Real-Time Seismic Monitoring in Haiti and Some Applications</i>	407
Allison L. Bent, John Cassidy, Claude Prépetit, Maurice Lamontagne, and Sophia Ulysse	
<i>Evaluation of the Pacific Tsunami Warning Center's Performance for the Caribbean Based on the Compilation and Analysis of Tsunami Messages Issued between 2003 and July 2017</i>	416
Victor Sardina, Kanoa Koyanagi, Nathan Becker, David Walsh, Charles McCreery, Stuart Weinstein, and Christa von Hillebrandt-Andrade	
<i>Assessment of the Pacific Tsunami Warning Center's Capabilities for Puerto Rico and the Virgin Islands based on the Computation of Detection and Response Times Accounting for Seismic Network Topology and Data Latencies</i>	424
Victor Sardina, Kanoa Koyanagi, Nathan Becker, David Walsh, Charles McCreery, Stuart Weinstein, and Christa von Hillebrandt-Andrade	
<i>Seismic, Volcanic, and Geodetic Networks in Ecuador: Building Capacity for Monitoring and Research</i>	432
Alexandra Alvarado, Mario Ruiz, Patricia Mothes, Hugo Yepes, Mónica Segovia, Mayra Vaca, Cristina Ramos, Wilson Enríquez, Gabriela Ponce, Paul Jarrín, Jorge Aguilar, Wilson Acero, Sandro Vaca, Juan Carlos Singaicho, Daniel Pacheco, and Andrea Córdova	
<i>Geophysical Networks in Colombia</i>	440
Carlos A. Vargas, Alexander Caneva, Hugo Monsalve, Elkin Salcedo, and Héctor Mora	
<i>Space Geodesy Infrastructure in Colombia for Geodynamics Research</i>	446
Héctor Mora-Páez, Juan-Ramón Peláez-Gaviria, Hans Diederix, Olga Bohórquez-Orozco, Leonardo Cardona-Piedrahita, Yuli Corchuelo-Cuervo, Jair Ramírez-Cadena, and Fredy Díaz-Mila	
<i>The Brazilian Seismographic Network (RSBR): Improving Seismic Monitoring in Brazil</i>	452
Marcelo B. Bianchi, Marcelo Assumpção, Marcelo P. Rocha, Juraci M. Carvalho, Paulo A. Azevedo, Sérgio L. Fontes, Fábio L. Dias, Joaquim M. Ferreira, Aderson F. Nascimento, Marcos V. Ferreira, and Iago S. L. Costa	
<i>The New National Geophysical and Geodetic Network (Uruguay)</i>	458
Leda Sánchez Bettucci, Norbertino Suárez, Néstor Campal, Judith Loureiro, Anahí Curbelo, Hernán Castro, Martín Rodríguez, Enrique Latorres, Oscar	

Castro Artola, Fiorella Arduin, Mauricio Faraone, Alejandra Pascale, and Esteban Abelenda

The Seismic Network of Chile 467
S. Barrientos and National Seismological Center (CSN) Team

The History, State, and Future of the Argentine Continuous Satellite Monitoring Network and Its Contributions to Geodesy in Latin America 475
Diego A. Piñón, Demián D. Gómez, Robert Smalley Jr., Sergio R. Cimbaro, Eduardo A. Lauría, and Michael G. Bevis

Strong-Motion Networks, Digital Signal Processing, and Database for El Salvador Earthquakes: 1966–2017 483
Walter Salazar, Rodolfo Torres, Luis Mixco, Vanessa Rivera, Erick Burgos, José Rivas, and Lyndon Brown 

Estimating Rupture Directions from Local Earthquake Data Using the IPOC Observatory in Northern Chile 495
J. Folesky, J. Kummerow, G. Asch, B. Schurr, Ch. Sippl, F. Tilmann, and S. A. Shapiro 

Focal Mechanism, Magnitude, and Finite-Fault Rapid Estimation Using the Elliptical Patch Method in Chile 503
F. Leyton, S. Ruiz, and R. Madariaga 

Empirical Site Classification of CSN Network Using Strong-Motion Records 512
F. Leyton, C. Pastén, S. Ruiz, B. Idini, and F. Rojas 

Geophysical Characterization of the Chilean Seismological Stations: First Results 519
F. Leyton, A. Leopold, G. Hurtado, C. Pastén, S. Ruiz, G. Montalva, and E. Saéz 

Interseismic Velocity Field and Seismic Moment Release in Northern Baja California, Mexico 526
J. Alejandro González-Ortega, J. Javier González-García, and David T. Sandwell 

Monitoring the Earthquake Cycle in the Northern Andes from the Ecuadorian cGPS Network 534
Patricia A. Mothes, Frederique Rolandone, Jean-Mathieu Nocquet, Paul A. Jarrin, Alexandra P. Alvarado, Mario C. Ruiz, David Cisneros, Héctor Mora Páez, and Mónica Segovia 

G-FAST Earthquake Early Warning Potential for Great Earthquakes in Chile 542
Brendan W. Crowell, David A. Schmidt, Paul Bodin, John E. Vidale, Ben Baker, Sergio Barrientos, and Jianghui Geng

ARTICLES

Preliminary Report on the 8 August 2017 M_s 7.0 Jiuzhaigou, Sichuan, China, Earthquake 557
Libo Han, Jia Cheng, Yanru An, Lihua Fang, Changsheng Jiang, Bo Chen, Zhongliang Wu, Jie Liu, Xiwei Xu, Ruifeng Liu, Zhixiang Yao, Changzai Wang, and Yushi Wang 

<i>Remote Faulting Triggered by Strong Seismic Waves from the Cretaceous–Paleogene Asteroid Impact</i>	570
Norman H. Sleep and E. Peter Olds	
<i>Do Large (Magnitude ≥ 8) Global Earthquakes Occur on Preferred Days of the Calendar Year or Lunar Cycle?</i>	577
Susan E. Hough 	
<i>Toward Seismic Metamaterials: The METAFORET Project</i>	582
Philippe Roux, Dino Bindi, Tobias Boxberger, Andrea Colombi, Fabrice Cotton, Isabelle Douste-Bacque, Stéphane Garambois, Philippe Gueguen, Gregor Hillers, Dan Hollis, Thomas Lecocq, and Ildut Pondaven	
<i>Structural Health Monitoring of Buildings Using Smartphone Sensors</i>	594
Qingkai Kong, Richard M. Allen, Monica D. Kohler, Thomas H. Heaton, and Julian Bunn 	
<i>Hypocenter Relocation along the Sunda Arc in Indonesia, Using a 3D Seismic-Velocity Model</i>	603
Andri D. Nugraha, Hasbi A. Shiddiqi, Sri Widiyantoro, Clifford H. Thurber, Jeremy D. Pesicek, Haijiang Zhang, Samsul H. Wiyono, Mohamad Ramdhan, Wandono, and Mahsyur Irsyam 	
<i>Virtual Green's Functions Using Seismic Interferometry and Marchenko Redatuming</i>	613
Robert L. Nowack and Mert Sinan Recep Kiraz	
<i>BlueSeis3A: Full Characterization of a 3C Broadband Rotational Seismometer</i>	620
Felix Bernauer, Joachim Wassermann, Frederic Guattari, Arnaud Frenois, Alexandre Bigueur, Arnaud Gaillot, Elliot de Toldi, Damien Ponceau, Ulrich Schreiber, and Heiner Igel	
<i>Assuring the Quality of IRIS Data with MUSTANG</i>	630
Robert Casey, Mary E. Templeton, Gillian Sharer, Laura Keyson, Bruce R. Weertman, and Tim Ahern 	
<i>New Macroseismic Intensity Assessment Method for New Zealand Web Questionnaires</i>	640
Tatiana Goded, Nick Horspool, Silvia Canessa, Adam Lewis, Krystal Geraghty, Amy Jeffrey, and Matt Gerstenberger 	
<i>What Googling Trends Tell Us about Public Interest in Earthquakes</i>	653
Yen Joe Tan and Rijan Maharjan 	
ELECTRONIC SEISMOLOGIST	
<i>SeisTomoPy: Fast Visualization, Comparison, and Calculations in Global Tomographic Models</i>	658
S. Durand, R. Abreu, and C. Thomas 	
<i>Interactive Visualization of Complex Seismic Data and Models Using Bokeh</i>	668
Chengping Chai, Charles J. Ammon, Monica Maceira, and Robert B. Herrmann 	

To Reach a Wider Audience, Simplify Your Science

677

Christine Goulet and Maurice Lamontagne

DATA MINE

Accelerometer, Velocimeter Dense-Array, and Rotation Sensor Datasets from the Sinaps@ Postseismic Survey (Cephalonia 2014–2015 Aftershock Sequence)

678

Vincent Perron, Fabrice Hollender, Armand Mariscal, Nikolaos Theodoulidis, Chrisostomos Andreou, Pierre-Yves Bard, Cécile Cornou, Régis Cottreau, Edward Marc Cushing, Alberto Frau, Sébastien Hok, Agisilaos Konidakis, Philippe Langlaude, Aurore Laurendeau, Alexandros Savvaidis, and Angkeara Svay

EASTERN SECTION

SEISMOLOGICAL

RESEARCH LETTERS

Update of the Urban Seismic and Liquefaction Hazard Maps for Memphis and Shelby County, Tennessee: Liquefaction Probability Curves and 2015 Hazard Maps

688

Chris H. Cramer, Mahesh S. Dhar, and David Arellano

Effect of Uncertainty in Source Parameters on Ground-Motion Variability for Potentially Induced Earthquakes in the Central United States

702

Joanna M. Holmgren and Gail M. Atkinson