

Program of the NMEM 2015
Smolenice Castle, Slovak Republic, July 5 – 9, 2015

Day	am	pm	Evening
Monday July 6	<p>07:20 - 08:15 Breakfast</p> <p>08:20 - 08:40 Welcoming and opening speech</p> <p>08:40 - 10:40 <u>Oral Session O1</u> Convenor – M. Bouchon</p> <p>08:40 - 09:10 M. Campillo, W. B. Frank, M. Radiguet, B. Rousset, N. M. Shapiro, A. L. Husker, V. Kostoglodov, N. Cotte Slow slip, tremors, LFES and temporal changes of seismic speed in Guerrero, Mexico</p> <p>09:10 - 09:40 Y. Luo, J.-P. Ampuero Two end-member models of slow-slip events and complex tremor migration patterns</p> <p>09:40 - 10:10 D. Mele Veedu, S. Barbot Geometry and pore pressure shape the period-multiplying tremors on the deep San Andreas fault</p> <p>10:10 - 10:40 R. A. Harris, N. A. Abrahamson Ground motions due to earthquakes on creeping faults</p> <p>10:40 - 11:00 Coffee Break</p> <p>11:00 - 12:30 <u>Poster Session P1</u></p>	<p>12:45 - 01:45 Lunch</p> <p>02:00 - 04:00 <u>Oral Session O2</u> Convenor – G. Beroza</p> <p>02:00 - 02:30 F. Gallovic, W. Imperatori Modeling velocity recordings of the Mw6.0 South Napa, California, earthquake: unilateral event with weak high-frequency directivity</p> <p>02:30 - 03:00 C. Twardzik, C. Ji, R. J. Archuleta Inversion for the stress conditions of the 2014 Napa Valley, California and the 2004 Parkfield, California earthquakes</p> <p>03:00 - 03:30 J. Díaz-Mojica, V. M. Cruz-Atienza, R. Madariaga, S.K. Singh, J. Tago, A. Iglesias Dynamic source inversion of an intermediate-depth earthquake: a slow and inefficient rupture with large stress drop and radiated energy</p> <p>03:30 - 04:00 M. A. M. Denolle, P. M. Shearer Radiated energy of shallow moderate-to-large earthquakes</p> <p>04:00 - 04:30 Coffee Break</p> <p>04:30 - 06:00 <u>Poster Session P2</u></p>	<p>07:00 - 07:30 Concert</p> <p>07:30 - 10:30 Workshop Dinner</p>

Day	am	pm	Evening
<p>Tuesday July 7</p>	<p>07:20 - 08:20 Breakfast</p> <p>08:30 - 10:30 <u>Oral Session O3</u> Convenor - M. Campillo</p> <p>08:30 - 09:00 V. Kostin, V. Lisitsa, G. Reshetova, V. Tcheverda, D. Vishnevsky Combination of numerical methods for simulation of seismic wave propagation in complex models</p> <p>09:00 - 09:30 K. A. Kroll, D. D. Oglesby, K. B. Richards- Dinger, J. H. Dieterich Multicycle simulations of earthquake rupture in regions with complex fault geometry</p> <p>09:30 - 10:00 Z. Zhang, X. Chen Dynamic rupture process of 2008 Mw7.9 Wenchuan earthquake with non-planar fault and irregular surface</p> <p>10:00 - 10:30 R. Douilly, H. Aochi, E. Calais, A. M. Freed 3D dynamic rupture simulations across interacting faults: the Mw 7.0, 2010, Haiti earthquake</p> <p>10:30 - 11:00 Coffee Break</p>		

Day	am	pm	Evening
<p>Tuesday July 7</p>	<p>11:00 - 13:00 <u>Oral Session O4</u> Convenor – P.-Y. Bard</p> <p>11:00 - 11:30 X. Chen, J. Xu, H. Zhang Rupture phase diagram and implications in earthquake physics</p> <p>11:30 - 12:00 Y. Huang, J.-P. Ampuero, D. V. Helmberger The potential for supershear rupture and enhanced ground motion in damaged fault zones</p> <p>12:00 - 12:30 S. Xu, E. Fukuyama, F. Yamashita, K. Mizoguchi, S. Takizawa, H. Kawakata Evolution of rupture style with total fault displacement: insight from meter-scale direct shear experiments</p> <p>12:30 - 13:00 E. M. Dunham, B. P. Lipovsky Rupture and seismicity during magnitude 7 stick-slip events of the Whillans Ice Stream</p>	<p>01:15 - 02:15 Lunch</p> <p>02:15 - 07:00 <u>Free Time</u></p> <p>hiking (+ cave) soccer match visit to Majolica manufacture</p>	<p>07:00 - 08:00 Dinner</p> <p>08:00- 10:00 <u>Poster Session P3</u> wine and beer will be served</p>

Day	am	pm	Evening
<p>Wednesday July 8</p>	<p>07:20 - 08:20 Breakfast</p> <p>08:30 - 10:00 <u>Oral Session O5</u> Convenor – H. Kawase</p> <p>08:30 - 09:00 P.-Y. Bard, E. Chaljub, J. Kristek, P. Moczo, C. Durand, A. Stambouli A numerical analysis of aggravation factors in two-dimensional alluvial valleys</p> <p>09:00 - 09:30 J. Kristek, P. Moczo, P.-Y. Bard, F. Hollender, S. Stripajová, Z. Margočová Numerical study of site effects in a class of local sedimentary structures</p> <p>09:30 - 10:00 F. De Martin, E. Chaljub, C. Lacave, J.-D. Rouiller Advanced seismic microzoning of the complex sedimentary basin of Martigny (Switzerland) by two-dimensional Aki-Larner method and three-dimensional spectral-element method</p> <p>10:00 - 10:20 Coffee Break</p>	<p>01:00 - 02:00 Lunch</p> <p>02:15 – 04:15 <u>Oral Session O7</u> Convenor – P. M. Mai</p> <p>02:15 - 02:45 L. A. Dalguer, Ph. Renault The need of physics-based ground motion models for hazard and risk assessment of nuclear power plants</p> <p>02:45 - 03:15 M. P. Moschetti, S. Hartzell, L. Ramirez-Guzman, A. Frankel Sensitivity of ground motion to kinematic rupture parameters for earthquakes in the Wasatch fault zone, Utah</p> <p>03:15 - 03:45 H. Kawase, K. Nakano, S. Matsushima Statistical properties of source, path, and site of Fourier spectra and response spectra from the generalized spectral inversion of strong ground motions</p> <p>03:45 - 04:15 A. S. Baltay, T. C. Hanks The relationship between stress drop and GMPE event terms</p> <p>04:15 - 04:35 Coffee Break</p>	

Day	am	pm	Evening
<p>Wednesday July 8</p>	<p><u>Oral Session O6</u> Convenor – X. Chen</p> <p>10:20 - 10:50 G. Beroza Ground motion prediction using the ambient seismic field</p> <p>10:50 - 11:20 R. Paolucci, I. Mazzieri, C. Smerzini Strong motion records and 3D physics-based numerical simulations of the Mw6.0 May 29, 2012 Po Plain earthquake, Italy</p> <p>11:20 - 12:50 <u>Poster Session P4</u></p>	<p>04:35 – 06:05 <u>Oral Session O8</u> Convenor – R. Harris</p> <p>04:35 - 05:05 M. Bouchon, V. Durand, D. Marsan, H. Karabulut, J. Schmittbuhl The long precursory phase of most large interplate earthquakes</p> <p>05:05 - 05:35 Y. Kaneko Numerical modeling of the nucleation process of laboratory earthquakes</p> <p>05:35 - 06:05 M. Galis, J. P. Ampuero, P. M. Mai, J. Kristek, P. Moczo Initiation of dynamic ruptures in numerical simulations</p> <p>06:05 - 06:15 R. J. Archuleta Concluding speech</p>	<p>07:00 - 10:00 Garden Party</p>

Poster presentations

ADAMS, Mareike, JI, Chen, ARCHULETA, Ralph

WHAT KINEMATIC PARAMETERS ARE RESOLVABLE IN FINITE FAULT INVERSIONS?

BAI, Kangchen, AMPUERO, Jean Paul

DYNAMIC RUPTURE SIMULATION OF THE Mw7.7 BALOCHISTAN EARTHQUAKE — STRIKE-SLIP RUPTURE PROPAGATED ONTO A REVERSE FAULT

BEROZA, Gregory

ENERGETIC AND ENERVATED EARTHQUAKES

CHALJUB, Emmanuel, MAUFROY, Emeline, DE MARTIN, Florent, HOLLENDER, Fabrice, BARD, Pierre-Yves, HOLLARD, Niels, ROUMELIOTI, Zafeiria, THEODOULIDIS, Nikos

NUMERICAL QUANTIFICATION OF THE VARIABILITY OF EARTHQUAKE GROUND MOTION IN THE MYGDONIAN BASIN, GREECE

CREMPIEN, Jorge G., JI, Chen, ARCHULETA, Ralph J.

INCLUSION OF SCATTERING NOISE INTO GREEN'S FUNCTIONS FOR WAVEFORM INVERSION OF FINITE FAULT SEISMIC SOURCE

CRUZ-ATIENZA, Victor M., SANABRIA-GOMEZ, Jose D., TAGO, Josue, CHALJUB, Emmanuel, VIRIEUX, Jean

SURFACE-WAVE PROPAGATION MODES IN THE VALLEY OF MEXICO: INSIGHTS FROM REALISTIC 3D EARTHQUAKE SIMULATIONS

DAUB, Eric G.

MULTI-SCALE EFFECTIVE FRICTION MODELS FOR FAULT-SCALE DYNAMIC RUPTURE

DURAND, Virginie, LE BOUTEILLER, Pauline, MANGENEY, Anne, KONE, El Hadji, PROTIN, Antoine, TEAM, OVPF

MODELLING AND SEISMIC OBSERVATION OF ROCKFALLS IN THE DOLOMIEU CRATER, PITON DE LA FOURNAISE, LA REUNION

FAN, Wenyuan, SHEARER, Peter M., JI, Chen

COMPREHENSIVE ANALYSIS OF THE 2009 TONGA-SAMOA EARTHQUAKE

FOJTÍKOVÁ, Lucia, KRISTEKOVÁ, Miriam, MÁLEK, Jiří, SOKOS, Efthimios, CSICSAY, Kristián, ZAHRADNÍK, Jiří

QUANTIFYING CAPABILITY OF A LOCAL SEISMIC NETWORK IN TERMS OF LOCATIONS AND FOCAL MECHANISM SOLUTIONS OF WEAK EARTHQUAKES

GABRIEL, Alice A., PELTIES, Christian, ULRICH, Thomas, WOLLHERR, Stephanie

LARGE-SCALE EARTHQUAKE DYNAMIC RUPTURE SCENARIOS ON NATURAL FAULT ZONES

GALIS, Martin, AMPUERO, Jean Paul, MAI, P. M.

FRACTURE-MECHANICS-BASED ESTIMATES OF MAGNITUDE OF INDUCED EARTHQUAKES

GARDONIO, Blandine, MARSAN, David, LENGLINE, Olivier, ENESCU, Bogdan, BOUCHON, Michel, GOT, Jean-Luc
CHANGES IN SEISMICITY AND STRESS LOADING ON SUBDUCTION FAULTS IN THE KANTO REGION, JAPAN, 2011 - 2014

HERRENDÖRFER, Robert, VAN DINTHER, Ylona, GERYA, Taras
SEISMO-MECHANICAL MODELLING: EARTHQUAKE SUPERCYCLES AND IMPLEMENTATION OF RATE-AND STATE-DEPENDENT FRICTION

HOLDEN, Caroline, KAISER, Anna
GROUND MOTION MODELLING OF AN ALPINE FAULT EARTHQUAKE FOR THE SOUTH ISLAND (NEW ZEALAND)

HUTCHISON, Alexandra A., GHOSH, Abhijit A.
MULTI-METHOD SYSTEMATIC APPROACH TO NON-VOLCANIC TREMOR DETECTION IN THE SAN JACINTO FAULT, CALIFORNIA

KOSTKA, Filip, GALLOVIČ, František
THE EFFECT OF STRESS PERTURBATION ON THE SEISMICITY OF A HETEROGENEOUS RATE-AND-STATE FAULT

LOZOS, Julian C.
A CASE FOR HISTORIC JOINT RUPTURE OF THE SAN ANDREAS AND SAN JACINTO FAULTS

MAI, P. Martin
UNCERTAINTY QUANTIFICATION AND QUALITY APPRAISAL FOR FINITE-FAULT EARTHQUAKE SOURCE INVERSIONS

MAY, Dave A., GABRIEL, Alice A.
A SPECTRAL ELEMENT DISCRETIZATION ON UNSTRUCTURED TETRAHEDRAL MESHES FOR ELASTODYNAMICS

MENG, Haoran, BEN-ZION, Yehuda
EXTRACTING RUPTURE VELOCITIES AND RUPTURE ENERGY FROM NEAR FIELD SEISMIC RECORDS

MENG, Lingsen, AN, Chao
APPLICATION OF SEISMIC ARRAY PROCESSING TO TSUNAMI EARLY WARNING

MORATTO, Luca, VUAN, Alessandro, SARAO, Angela
APPLICATION OF A HYBRID APPROACH FOR BROADBAND GROUND MOTION SIMULATIONS TO THE 2008 IWATE-MIYAGI NAIRIKU EARTHQUAKE

PEROL, Thibaut, BHAT, Harsha
MICROMECHANICS BASED OFF-FAULT PERMEABILITY EVOLUTION DURING EARTHQUAKES

SHANI-KADMIEL, Shahar, TSESARSKY, Michael, GVIRTZMAN, Zohar
SIMULATION OF SEISMIC-WAVE PROPAGATION DURING THE 1927 ML 6.25 JERICHO EARTHQUAKE

SHI, Zheqiang, DAY, Steven M.
RUPTURE DYNAMICS AND GROUND MOTIONS FROM 3-D DYNAMIC ROUGH-FAULT SIMULATIONS OF DIP-SLIP EVENTS

ULRICH, Thomas, GABRIEL, Alice-Agnes

INFLUENCE OF FAULT GEOMETRIC HETEROGENEITIES ON THE DYNAMIC RUPTURE PROCESS

VACKÁŘ, Jiří, ZAHRADNÍK, Jiří, BURJÁNEK, Jan

ADVANCED MOMENT-TENSOR INVERSION CODE

WOLLHERR, Stephanie, GABRIEL, Alice-Agnes, IGEL, Heiner

DYNAMIC RUPTURE SIMULATIONS ON COMPLEX FAULT ZONE STRUCTURES WITH OFF-FAULT PLASTICITY USING THE ADER-DG METHOD

XU, Shiqing, TAKIZAWA, Shigeru, FUKUYAMA, Eiichi, YAMASHITA, Futoshi, MIZOGUCHI, Kazuo, KAWAKATA, Hironori

LABORATORY INVESTIGATION OF SLIP MODE ALONG A BIMATERIAL (GABBRO/MARBLE) FAULT INTERFACE: PRELIMINARY RESULTS AND IMPLICATIONS

ZHANG, Ailin, MENG, Lingsen

INVESTIGATION OF EARTHQUAKE RUPTURE DIMENSION THROUGH SEISMIC INTERFEROMETRY