

GEM CONFERENCE

FROM FAULTS TO FUTURE SCENARIOS

June 23 - 25, 2026

University of Zagreb, Croatia

DAILY AGENDA

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DAY 1 AUDITORIUM AGENDA



Date
23 June 2026



Time
09:00 - 17:00



Location
University of Zagreb, Croatia

Conference Title: GEM Conference 2026 - From Faults To Future Scenarios

TIME	TITLE	SPEAKER	AFFILIATION
09:00 - 09:10	Institutional Welcome	TBD	
09:10 - 09:20	CCEE and GEM	Josip Atalić	University of Zagreb
09:20 - 09:30	Welcome to the GEM Conference 2026	Helen Crowley	GEM Foundation
	Session: GEM Global Release 2026		
09:30 - 10:00	Global Seismic Hazard v2026	Marco Pagani	GEM Foundation
10:00 - 10:30	Global Seismic Risk v2026	Vitor Silva	GEM Foundation
10:30 - 11:30	Coffee break + GEM demos + GEM PhD posters		
11:30 - 13:00	GEM's Seismic Hazard Mosaic	Kendra Johnson	GEM Foundation
	Global Block Model (Active Faults Database)	Richard Styron	GEM Foundation
	Global Stochastic Event Set (SEESAWS)	Manuela Vilani	GEM Foundation
	Global Earthquake Catalogue	Kirsty Bayliss	GEM Foundation
	Global Ground Motion Flat File	Christopher Brooks	
13:00 - 14:30	Lunch		
14:30 - 14:45	GEM's New Vulnerability Modelling Framework	Al Mouayed Bellah Nafeh	GEM Foundation
14:45 - 15:00	Future Exposure/Risk to 2065	Alejandro Calderón	GEM Foundation
15:00 - 15:15	Global Exposure of Infrastructure to Liquefaction	Catarina Costa	GEM Foundation
15:15 - 15:30	Global Carbon Cost of Earthquakes	Martina Caruso	GEM Foundation
15:30 - 16:00	Coffee break + GEM demos + GEM PhD posters		
16:00 - 16:30	Keynote: Advancing Seismic Risk Assessment in El Salvador using GEM Tools Moderator: Lindsay Davies, USGS	Luis Mixco	MARN, El Salvador
16:30 - 17:00	Ignite Session for Live Demos Moderator: Iain Stewart, University of Plymouth		

DAY 2 AUDITORIUM AGENDA (AM)



Date
24 June 2026



Time
09:00 - 14:15



Location
University of Zagreb, Croatia

Conference Title: GEM Conference 2026 - From Faults To Future Scenarios

TIME	TITLE	SPEAKER	AFFILIATION
09:00 - 09:10	Welcome to day 2	Helen Crowley	GEM Foundation
	Session: Dynamic Exposure Modelling Moderator: TBD		
09:10 - 09:30	Invited Talk: Forward-looking Exposure Modelling for Human-centred Urban Disaster Mitigation	Carmine Galasso	University College London, UK
09:30 - 09:45	Machine Learning Forecasting Techniques for Earth Observation Data	Christian Geiß	German Aerospace Center
09:45 - 10:00	Spatial Disaggregation and Temporal Projection of Building Exposure and Physical Vulnerability using Deep Constrained Clustering and Probabilistic Graph Deep Learning	Joshua Dimasaka*	University of Cambridge, UK
10:00 - 10:15	Predicting population displacement due to earthquakes globally	Nicole Paul	University College London, UK / ETH Zurich, Switzerland
10:15 - 10:30	Baseline Survey Framework for GEM-Standardised National Building Exposure Model towards Earthquake Risk Assessment in Uganda	Morris Oleng*	National Building Review Board, Uganda
10:30 - 11:30	Coffee break + demos + posters		
	Session: Next Generation Vulnerability Moderator: Ana Beatriz Acevedo, EAFIT University, Colombia		
11:30 - 11:45	A Framework for Assessing the Seismic Vulnerability of Indonesian Infilled Masonry Dwellings	Angga Sabaruliman	The University of Sydney, Australia
11:45 - 12:00	Integrated Seismic Risk Assessment for Masonry Structures in the Marmara Region: AEM-Based Simulations and PML Comparative Analysis	Seyhan Okuyan Akcan*	Boğaziçi University, Turkey
12:00 - 12:15	Reduction of seismic risk for typical URM residential buildings in Zagreb using target retrofitting	Ante Pilipović	University of Zagreb, Croatia
12:15 - 12:30	From spatial correlation to damage dependence and IM conversion in seismic risk models	Gerard O'Reilly	IUSS Pavia, Italy
12:30 - 12:45	Vulnerability modelling for embodied carbon (title TBD)	Karim Aljawhari	GEM Foundation
12:45 - 14:15	Lunch		

DAY 2 AUDITORIUM AGENDA (PM)



Date
24 June 2026



Time
14:15 - 18:00



Location
University of Zagreb, Croatia

Conference Title: GEM Conference 2026 - From Faults To Future Scenarios

TIME	TITLE	SPEAKER	AFFILIATION
	Session: Disaster Risk Reduction Applications (Moderator: Jenty Kirsch Wood, UNDRR)		
14:15 - 14:30	Reducing Disaster Risk: Translating Technical Models to Implementation	Veronica Cedillos	GeoHazards International, USA
14:30 - 14:45	Implementing and Scaling Up Earthquake Desks: A Practical Disaster Risk Reduction Application for Schools	Sweata Sijapati*	GeoHazards International, Nepal
14:45 - 15:00	From Risk Modelling to Policy Development: Early Applications of Canada's National Seismic Risk Model	Carlos Molina Hutt	University of British Columbia, Canada
15:00 - 15:15	Scenario Risk Results for the Department of Antioquia (Colombia)	Ana Beatriz Acevedo	EAFIT University, Colombia
15:15 - 15:45	Panel Taking stock: Measuring impact in disaster risk reduction (Moderator: Jenty Kirsch Wood, UNDRR)		
15:45 - 16:45	Coffee break + demos + posters		
	Session: Financial Risk Transfer (Moderator: Laurie Johnson, Laurie Johnson Consulting)		
16:45 - 17:00	Invited Talk: GEM as a Key Pillar of a Flexible and Diversified Cat Model Ecosystem	Iwan Stalder	Zurich Insurance, Switzerland
17:00 - 17:15	Building a Nationwide, Seismic Sensor-based, Parametric Earthquake Insurance Program for Morocco	Evan Reis	Safehub, USA
17:15 - 17:30	GEM Product Applications in the (Re)insurance Industry	Molly Gallahue	Gallagher Re, UK
17:30 - 17:45	Understanding Earthquake Catastrophe Risk in the Balkans: A new Guy Carpenter Model	Robert Churchill	Guy Carpenter, UK
17:45 - 18:00	Advancing Catastrophe Models with Earthquake-Triggered Secondary Geoperils: A Case Study for Italy	Abril Sanchez	Aon/Impact Forecasting, Czech Republic

DAY 2 NATIONAL HAZARD WORKSHOP AGENDA



Date
24 June 2026



Time
09:00 - 18:00



Location
University of Zagreb, Croatia

Conference Title: GEM Conference 2026 - From Faults To Future Scenarios

TIME	TITLE	SPEAKER	AFFILIATION
09:00 - 09:30	Australian National Seismic Hazard Model (NSHM)	Trevor Allen	Geoscience Australia
09:30 - 10:00	Probabilistic seismic hazard assessment for mainland France and the French Lesser Antilles islands	Céline Beauval	ISTerre, France
10:00 - 10:30	New Zealand NSHM	Matt Gerstenberger	Earth Sciences New Zealand
10:30 - 11:15	Coffee break + demos + posters		
11:15 - 11:45	Seismic Hazard Assessment in Japan: Recent Updates and Emerging Challenges	Asako Iwaki	NIED, Japan
11:45 - 12:15	The USGS National Seismic Hazard Models and Their Use in U.S. Building Codes	Nico Luco	U.S. Geological Survey
12:15 - 12:45	Swiss NSHM	Laurentiu Danciu	SED/ETH Zurich, Switzerland
12:45 - 14:15	Lunch		
14:15 - 14:45	Probabilistic Seismic Hazard Assessment for Taiwan: Updates and Improvements in TEM PSHA2025	Chung-Han Chan	E-DReaM Center, Taiwan
14:45 - 15:15	Italian NSHM	Akinci and D'Amico	INGV, Italy
15:15 - 15:45	Progress towards updating Canada's National Seismic Hazard and Risk Models	Michal Kolaj	Natural Resources Canada
15:45 - 16:30	Coffee break + demos + posters		
16:30 - 17:00	Country-Scale Seismic Hazard Assessment in Data-Scarce Regions of the East African Rift	Mohammed Al-Ajamee*	University of Khartoum, Sudan
17:00 - 17:30	NSHM Guidelines		
17:30 - 18:00	Discussion		

DAY 3 AUDITORIUM AGENDA



Date
25 June 2026



Time
09:00 - 15:00



Location
University of Zagreb, Croatia

Conference Title: GEM Conference 2026 - From Faults To Future Scenarios

TIME	TITLE	SPEAKER	AFFILIATION
09:00 09:10	Welcome to day 3 Session: Scenarios and Cascading Hazards (Moderator: Indranil Kongar, University College London)	Helen Crowley	GEM Foundation
09:10 09:25	The Global Tsunami Model association Probabilistic Tsunami Hazard Model (GTMTHM26) progress	Stefano Lorito	INGV, Italy
09:25 09:40	From Hazard Science to Actionable Insights: Bridging the Global Tsunami Risk Gap for Societal and Financial Resilience	Naveen Ragu Ramalingam [^]	Norwegian Geotechnical Institute
09:40 09:55	Toward Enhanced Portfolio Seismic Risk Estimates via Physics-Based Ground Motion Simulations	Preetish Kakoty	University College London, UK
09:55 10:10	A Methodology for Modeling of Mainshock-Aftershock Seismic Loss Assessment	Ömer Faruk Kalayci*	Istanbul Technical University, Turkey
10:10 10:25	Modelling earthquake sequences: When does damage accumulation matter?	Cecilia Nievas	GFZ Helmholtz Centre for Geosciences, Germany
10:25 10:40	Rethinking uncertainties for seismic hazard scenarios: A case study of the Lembang and Cimandiri faults in Indonesia	Ekbal Hussain	British Geological Survey
10:40 11:25	Coffee break + demos + posters Session: Recent Damaging Earthquakes and Emergency Response (Moderator: Alexandru Tiganescu)		
11:25 11:40	Was the 30 September 2025 Mw6.9 Offshore Northern Cebu Earthquake Effectively Forecasted Using EBSPPRA?	Azdine Kay Ysulan*	PHIVOLCS
11:40 11:55	Towards the Development of Static Ground Displacement and Transient Ground Strain ShakeMaps	David Wald	U.S. Geological Survey
11:55 12:10	Developing PAGER 2.0: Next Generation Forecasts to Inform Rapid Global Earthquake Response	Kishor Jaiswal	U.S. Geological Survey
12:10 12:25	Towards uncertainty-based tsunami exposure models for rapid post-event assessment	Finn Løvholt	Norwegian Geotechnical Institute
12:25 12:45	Invited Talk: Advancing Global Earthquake Impact Estimation for Humanitarians in GDACS and beyond - A Review of Achievements, Challenges and Opportunities over the Past Year	Marzia Santini	Joint Research Centre, Italy
12:45 13:00	Closure of GEM Conference 2026	Helen Crowley	GEM Foundation
13:00 14:30	Lunch / Governing Board Meeting		
15:30	Field Trip		

* early career researcher with travel grant ^ early career researcher with fee waiver



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DAY 3 NATIONAL HAZARD WORKSHOP AGENDA



Date
25 June 2026



Time
09:00 - 12:45



Location
University of Zagreb, Croatia

Conference Title: GEM Conference 2026 - From Faults To Future Scenarios

TIME	TITLE	SPEAKER	AFFILIATION
09:00 - 09:30	Transforming Seismic Hazard Models to Industry-Ready Risk Models	Jochen Woessner	Moody's RMS, Switzerland
09:30 - 10:00	National seismic hazard assessment for dams: emphasis on Himalaya and Northeast Indian region	Mukat Lal Sharma	Indian Institute of Technology Roorkee
10:00 - 10:30	From fault data to fault sources in South America: Experiences and challenges from the GEM-SARA project	Carlos Costa*	Universidad Nacional de San Luis, Argentina
10:30 - 11:15	Coffee break + demos + posters		
11:15 - 11:45	Understanding the Regional Variability of Ground Motion across South America for Subduction Earthquakes	Jorge Luis Paredes Estacio	University of Bristol, UK
11:45 - 12:15	Residual Analysis of Algerian Strong-Motion Data for GMPE Validation and Site-Effects Assessment	Faouzi Gherboudj	Centre National de Recherche en Génie Parasismique, Algeria
12:15 - 12:45	Closure of National seismic hazard modelling workshop	Marco Pagani	GEM Foundation