



Tectonic Stress: from the lithosphere to the wellbore

21-22 May 2024

In person at Burlington House and Virtual via Zoom

Provisional Programme

Day One	
08.30	Registration
09.10	Welcome
Session One: Tectonic forces, Lithospheric Stress/Strain	
09.20	How strong is the upper continental crust? James A Chalmers
09.40	The constant-strength model of overpressured crust: Present-day strength-depth observations to 14km in the western Taiwan plate-boundary zone John Suppe
10.00	The Physics of Stress Gary D Couples
10.20	BREAK
Session Two: Measuring/ monitoring/ modelling Stress I	
10.50	KEYNOTE Recent Findings and Future of the World Stress Map Project Oliver Heidbach
11.30	Probabilistic stress reconstruction constrained by the orientation of fractures Rivalta, E
11.50	Tectonic stress evolution on the western margin of Central Africa between the Congo Basin and the Atlantic coast from fault-slip data analysis and paleostress reconstruction Delvaux Damien
12.10	Effect of time-dependent damage deformation on fault zone stress magnitude: field and experimental evidence Mayukh Talukdar
12.30	LUNCH
Session Three: Measuring/ monitoring/ modelling Stress II	
13.30	Quantification of in situ stress onshore UK Dave Healy
13.50	Use of shear wave splitting to investigate stress field orientation Joseph Asplet / Mark Fellgett
14.20	Three-dimensional numerical modelling of drilling-induced tensile wall fractures Martin Schöpfer
14.40	Stress measurements for calibrating geomechanical models – Examples from the site selection process for a nuclear waste repository in northern Switzerland Jean Desroches

15:00	Calibration of geomechanical models – Examples from the site selection process for a nuclear waste repository in northern Switzerland Karsten Reiter
15.20	BREAK – Extended Poster Session
	Session Four: Keynote talk & Group Discussion
16.00	KEYNOTE Implications of Seismicity Triggered by Large-Scale Injection of Produced Water for Massive-Scale CO2 Storage in Saline Aquifers Mark Zoback
16.45	Group Discussions
17.30	End of day one
17.30-18.30	Drinks Reception

Day Two	
08.30	Registration
	Session Five: Geomechanics & Fluid flow I
09.00	Murmurations of stress: fractures from flowrates Kes Heffer
09.20	Targeting critically stressed fractures to enhance production in the Lama Fm., Anoa Field, Natuna Sea, Indonesia Brian O’Sullivan
09.40	KEYNOTE Numerical Simulation of Fault Slip During Hydrogen Storage in a Depleted Gas Reservoir Adriana Paluszny
10.20	BREAK – Extended Poster Session
	Session Six: Seismicity and Seismic Hazards
10.50	KEYNOTE Assessing stress from seismicity, focal mechanisms and anisotropy - implications for geomechanics Mike Kendall
11.30	Quantifying Shallow Tectonic Stresses and their Influence on Active Faulting at the Hikurangi Subduction Margin, New Zealand David D. McNamara
11.50	Deciphering the modern stress field facies in Costa Rica and vicinity from earthquake focal mechanisms and GNSS support Allan López
12.10	Landslides, earthquakes and far field stress on a passive margin: Australia’s North West Shelf Myra Keep
12.30	LUNCH

Session Seven: Geomechanics & Fluid flow II	
13.30	Recurrent reservoir triggered earthquakes in Koyna, western India: insights from scientific drilling and borehole investigations Deepjyoti Goswami
13.50	Informing Geothermal Prospectivity using Structural Permeability Patterns in Averaged Stress Fields Harold Leah
14.10	Rupture Directivity of Fluid-Induced Seismic Events Germán Rodríguez
14.30	KEYNOTE Mud Volcanoes: What They Tell Us About Stress and Pore Pressure Mark Tingay
15.10	Closing Remarks
15.20	End of Conference

Posters	
	Prediction of the recent crustal stress state of Germany – The SpannEnD Project Steffen Ahlers
	Plio-Quaternary interaction between Adria and surrounding orogens: a Central-Northern Apennines perspective Paolo Pace
	The Morphology of Induced Tensile Fractures in Boreholes: Lessons learnt from Scientific Drilling Mario Habermueller
	The impact of tectonics on the geothermal resources distribution in the eastern Po Plain, northern Italy Dimitra Rapti
	Slip-dilation tendencies and CFS within an oil-gas prospective basin in Costa Rica Allan López
	New seismologic inversion method for absolute crustal stress and deep pore-fluid pressure Yi-Rong Yang

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