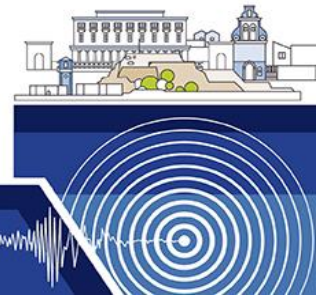


# 39<sup>th</sup> GENERAL ASSEMBLY OF THE EUROPEAN SEISMOLOGICAL COMMISSION

# ESC2024

22-27 September 2024  
CORFU, GREECE



## Session 08

### Physics of earthquake preparation process: From laboratory experiments to earthquake forecast

#### Conveners:

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In this Session, we invite researchers to discuss the results and directions for further studies of the physics of the seismic process – from experiments under laboratory conditions to rock bursts in mines and seismically active regions during the preparation phase of strong earthquakes.

Skepticism about earthquake forecasting, both deterministic and probabilistic, especially in real time, is related to the complexity of the earthquake process, which is a consequence of our limited scientific knowledge and insufficient understanding of it. Which are the physical phenomena that take place in the Earth's crust before the earthquake nucleates? How can we observe, describe and model them physically and statistically? Will artificial intelligence, with its neural networks, help us to understand the physics of the processes that take place inside our planet as it prepares for an earthquake?

We invite representatives of the seismological community to present their results on these topics, to show the current view of the state of the problem, what has been achieved in the field of earthquake forecasting, what needs to be done and in which direction to move forward. Reports on the use of forecasts to inform the public or to support earthquake mitigation planning are also welcome.

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