

## Seminar: “The challenges posed by Induced Seismicity in the energy transition”

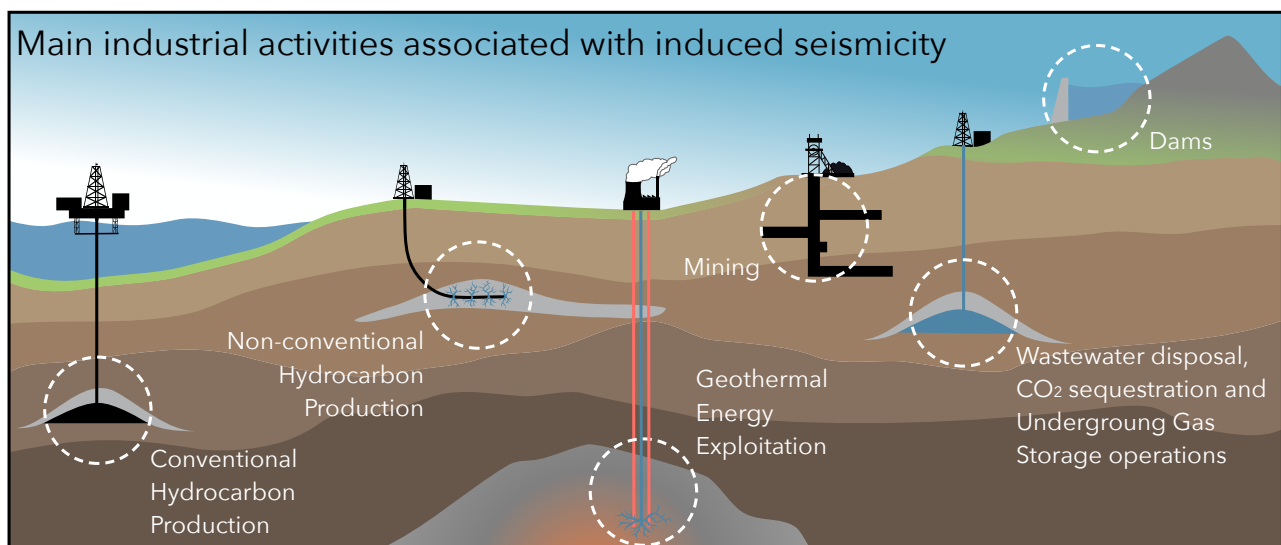
Francesco Grigoli, Dept. of Earth Sciences, University of Pisa

04 November 2021, Thursday 14.00-15.00

Room C, Earth Sciences Dept. , University of Pisa, Via Santa Maria 53, 56126, Pisa, Italy  
Physical attendance (limited number of seats): ([CLICK\\_HERE\\_TO\\_RESERVE\\_A\\_SEAT](#))

Online attendance: ([CLICK\\_HERE\\_FOR\\_THE\\_LINK\\_TO\\_THE\\_SEMINAR](#))

Any industrial activity that alters the state of stress or the pore pressure within the Earth’s crust can, in principle, induce earthquakes, although most do not. The term “induced seismicity” usually denotes the seismic activity directly or indirectly caused by such industrial operations. Induced seismicity generally occurs in conjunction with different human activities (see figure). A better understanding of the physical processes governing induced and triggered seismicity is thus an important input for the risk assessment of the current and future industrial activities, including those related to the energy transition such as underground CO<sub>2</sub> sequestration and Geothermal energy exploitation. The goal of this seminar is to provide an introduction to the physical mechanisms governing induced seismicity and to give an overview of important induced seismicity cases, such as the Mw 5.5 Pohang (South Korea) Earthquake sequence which has been associated to Geothermal energy exploitation operations.



Short bio:

Francesco Grigoli is currently an assistant professor in Seismology at the University of Pisa, in Italy. His research area focuses on the development of new methods for the analysis of seismological data with the aim of better understanding the physical processes governing the generation of earthquakes. He is particularly interested in the development of new methods for the analysis and characterization of massive microseismic datasets using full-waveform techniques and, more recently, machine learning. He got a Ph.D. in Seismology at the UniPotsdam/GFZ (Germany) in 2014. Since 2016, before moving to Pisa, he was a Senior Researcher at ETH-Zurich (Swiss Seismological Service) and in 2019 visiting researcher at Stanford University.