



UNIVERSITÀ  
degli STUDI  
di CATANIA

DEPARTMENT OF BIOLOGICAL, GEOLOGICAL AND  
ENVIRONMENTAL SCIENCES  
Master's Degree in Geophysical Sciences  
Academic Year 2017/2018 - 1° Year

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## SISMOLOGIA CON LABORATORIO

9 CFU - 2° Semester

### Teaching Staff

**STEFANO GRESTA** - Module Seismology - GEO/10 - 6 CFU

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### DETAILED COURSE CONTENT

#### ▪ Seismology

Theory of elasticity. Stress and strain tensors. Equations of Navier. Equations and propagation of P and S waves. Seismic energy. The Snell's law.. Seismic networks. Hypocentral locations. The Richter's magnitude. Foreshocks and aftershocks. Omori's and Gutenberg-Richter's laws. Elastic dislocations. Seismic sources. Focal mechanisms. Source parameters.

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### TEXTBOOK INFORMATION

#### ▪ Seismology

Lay e Wallace - Modern global seismology, Academic Press, 1995

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