

Consorzio Universitario per la Geofisica

Alfredo Mazzotti

Professore Ordinario presso il Dipartimento di Scienze della Terra
Settore scientifico disciplinare: Geofisica Applicata GEO/11

Settore scientifico disciplinare: Geofisica Applicata GEO/11

Cariche

Presidente del Corso di Laurea Magistrale: Geofisica di Esplorazione e Applicata (Corso di Laurea Magistrale)

Curriculum

Alfredo Mazzotti is professor of Geophysics at the Department of Earth Sciences of the University of Pisa, where he teaches reflection seismology and seismic data processing. He is a member of the Galileo Galilei School of Doctorate and has acted as the first director of the Master of Science Course in Exploration and Applied Geophysics. From 1982 to 1994 he was employed at ENI- Hydrocarbon Exploration where he worked as research geophysicist, senior research assistant and head of the Geophysical Research Department. He graduated with honours at the University of Florence in 1981 with a thesis on seismic tomography.

His current research activities include multi-component seismic and quaternion processing, 2D and 3D seismic data processing and seismic inversion. He has led and currently leads several research projects funded either by private companies and by public institutions.

Projects sponsored by the European Commission:

- Integrated Geophysical Exploration Technologies for deep fractured geothermal systems (I-GET) (VI Framework Programme, in partnership with GeoForschungsZentrum GFZ Potsdam, ENEL-GreenPower, BRGM France, Freie Universitat Berlin, Polish Academy of Sciences and others)
- 4D Tomographic and AVO Inversion for seismic Lithology, (4D-TAIL) (DGXVII Joule/Thermie Programme ; with TOTAL, Norsk Hydro and OGS).
- Monitoring Urban Subsidence, Cavities and Landslide (MUSCL), (DGXII Environment Programme; with ISPRA, Politecnico di Milano and Innsbruck University).

Projects sponsored by Italian Public Institutions:

- Geophysical study and monitoring of land instability phenomena in the Ancona area (financed by the Ancona Municipality and Regione Marche)
- Development and comparison of methods for the seismic risk evaluation in seismogenic areas: application to the central and southern Apennines (financed by the National Earthquake Defence Group).
- Geophysical, geological and geochemical studies in the Colfiorito seismogenic area and development of an integrated model (Italian Ministry for the University and Research).

Projects sponsored by Private International Companies:

- Seismic characterization of hydrocarbon reservoirs . ENI.
- 3D seismic processing and inversion with gravity and magnetic data. EDISON International.
- Seismic While Drilling and VSP. ENEL Produzione.
- 3D seismic data processing and analysis in the Larderello-Travale geothermal areas. ENEL GreenPower.
- 3D Fourier regularization of spatial sampling by means of stochastic inversion. ENI
- Study and analysis of multicomponent OBC and of dual sensor data. ENI
- Controlled amplitude processing and AVO inversion. EDISON International.
- Seismic methods for sub-basalt exploration. ENI
- AVO and wavelet processing of seismic land data in the Po Valley. ENEL UpStreamGas
- Overpressure and hazard prediction by means of reflection seismic methods. ENI
- Seismic and petrophysical characterization of geothermal reservoirs . ENEL GreenPower.
- Studies on Full Waveform Inversion ENI

He has authored 120 publications and has received the EAGE Loran Eotvos Award in 1998 and again in 2005 for the best paper published in Geophysical Prospecting. He is a member of the European Association of Geoscientists and Engineers (EAGE), and of the Society of Exploration Geophysicists (SEG). Cofounder and first president of the Italian EAEG-SEG Section.