

Physicist, he is Full Professor of Solid Earth Geophysics at the University of Siena where he teaches 'Applied Geophysics' and 'Seismic Hazard'. He is Research Associate of the National Institute of Oceanography and Experimental Geophysics in Trieste. He is presently the President of the Centre of Seismic Microzoning (at the National Research Council - CNR) and member of the advisory board of the Prime Minister of the Italian Government for Seismic Risk (Great Risks Commission). He is scientific advisor at the International Atomic Energy Agency of United Nations (IAEA) for seismic microzoning and testing seismic hazard estimates at Nuclear Power Plants.

During his scientific career, he was involved in quantitative modelling of geodynamic processes with numerical and analytic methods, assessment of stress and strain fields at regional scale from geodetic and seismic data, of seismicity induced by large dams, deformation processes in geothermal areas, mud volcanoes dynamics and probabilistic seismic hazard assessment at regional scale. He has been also engaged in the study of pre- and co-seismic phenomena relative from RADON and deep piezometric data, and of statistical studies relative to short and medium term earthquake prediction. In the last years he has been mainly involved in the development and application of passive seismic methods for subsoil exploration and has been also responsible for field surveys in the field of archaeological and geotechnical exploration of the shallow subsoil.

As a member of a number of Scientific Committees and International and National research groups, he developed and applied innovative techniques for seismic hazard assessment at national and local (seismic microzoning) scales. In particular, on behalf of the Dept. of Civil Protection of the Italian Government he was a member of the working group for the definition of the National Guidelines for Seismic Microzoning. From 2013 until 2015 he directed the National Research Project (DPC-INGV) devoted to short term earthquake prediction. He also coordinated a number of seismic microzoning studies in Central and Northern Italy. He is the author of more than 250 extended papers (SCOPUS H-index=27).