

## Curriculum Vitae - Dr. Marcello Viti

Born in Montalcino near Siena (Italy) on August 30, 1965. He graduated in Geological Sciences at University of Siena (Italy) in 1991, by discussing a dissertation about seismic deformation in the Mediterranean region. In 1996 he took his Ph. D. in Earth Sciences from universities of Siena and Genoa, by working in the field of rheological structure and deformation of the lithosphere in the Mediterranean region. In the period 1997-2007 he collaborated in various forms with the research team in geophysics at the Earth Science Department of the University of Siena, also teaching subjects as Physics of the Earth and Tectonophysics in basic and specialistic courses of that university.

Since the end of year 2007 he is Researcher in Solid Earth Geophysics at the University of Siena. Member of the American Geophysical Union since 2007, he has been a referee for the journal *Engineering Structures* (Elsevier Ltd.).

His research work concerns deformation processes related to plate tectonics and their effects in seismic activity. Specific issues are the geodynamics of the Mediterranean region (Cenozoic evolution and plate kinematics); seismicity of the Italian region and the role of post-seismic relaxation phenomena; numerical modelling of tectonic processes; reconstruction of active deformation and stress regimes by seismological and tectonic data; interpretation of space geodesy measurements (mainly GPS data); rheology of the lithosphere and estimate of tectonic forces; subduction processes and generation of back arc-arc-trench systems in the world.

### Key Publications

- Albarello D., Batini F., Bianciardi P., Ciulli B., Spinelli E., Viti M., 2005. Stress field assessment from ill-defined fault plane solutions: an example from the Larderello geothermal field (western Tuscany, Italy). *Boll. Soc. Geol. It., Vol. Spec.*, 3, 187-193.
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- Cenni N., D'Onza F., Viti M., Mantovani E., Albarello D., Babbucci D., 2002. Post seismic relaxation processes in the Aegean-Anatolian system: insights from space geodetic data (GPS) and geological/geophysical evidence. *Boll. Geof. Teor. Appl.*, 43, 23-36.
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- Cenni N., Mantovani E., Baldi P., Viti M., 2012. Present kinematics of central and northern Italy from continuous GPS measurements. *J. Geodynamics*, 58, 62-72. <http://dx.doi.org/10.1016/j.jog.2012.02.004>.
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- Mantovani E., Viti M., Babbucci D., Tamburelli C., Albarello D., 2006. Geodynamic connection between the indentation of Arabia and the Neogene tectonics of the

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- Mantovani E., Babbucci D., Viti M., Albarello D., Mugnaioli E., Cenni N., Casula G., 2006. Post-Late Miocene kinematics of the Adria microplate: inferences from geological, geophysical and geodetic data. In *The Adria Microplate: GPS Geodesy, Tectonics, and Hazards*, edited by N. PINTER (Springer, The Netherlands), 51-69.
- Mantovani E., Viti M., Babbucci D., Tamburelli C., 2007. Major evidence on the driving mechanism of the Tyrrhenian-Apennines arc-trench-back-arc system from CROP seismic data. *Boll. Soc. Geol. It.*, 126, 459-471.
- Mantovani E., Viti M., Babbucci D., Albarello D., 2007. Nubia-Eurasia kinematics: an alternative interpretation from Mediterranean and North Atlantic evidence. *Annals Geophysics*, 50, 311-336.
- Mantovani E., Viti M., Babbucci D., Vannucchi A., 2008. Long-term prediction of major earthquakes in the Calabrian Arc. *Environmental Semeiotics*, 1, 190-20, doi: 10.3383/es.1.2.3.
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