

Aldo Zollo –Curriculum Vitae (2010)

Born: November, 9, 1959, Napoli, Italy

Citizenship: Italian

Present Position: Full Professor at Università degli Studi di Napoli "Federico II"

Address: Dipartimento di Scienze Fisiche, Università di Napoli "Federico II"

Complesso Universitario di M.S. Angelo, via Cinthia - 80125 Napoli (Italia)

Phone: 00 39 081 676810/2420315 fax: 00 39 081 676346/2420334

E-mail: aldo.zollo@unina.it

Web page: <http://people.na.infn.it/zollo>

Educational Degrees

Master thesis in Physics at the University of Naples "Federico II" (1983)

PhD in Internal Geophysics (Seismology) at the Université de Paris VII (Paris, France) (1990)

Teaching and Research Activity

1983-1987 Research contract at Osservatorio Vesuviano, Napoli.

1988-1990 EU fellowship at the Institut de Physique du Globe de Paris, Paris, France.

1991-1992 University Researcher at the Università degli Studi di Napoli "Federico II"

1993-1996 Associate Professor (Solid Earth Physics) at the Università degli Studi di Napoli "Federico II".

1997-2002 Associate Professor (Seismology) at the Università degli Studi di Napoli "Federico II"

since 2002 Full Professor (Seismology) at the Università degli Studi di Napoli "Federico II"

Editorial and reviewing activity

- Associate Editor of the Journal of Geophysical Research (1993-1996).
- Referee of different international seismological and volcanological journals (Journal Geophysical Research, Bulletin of Seismological Society of America, Journal of Volcanology and Geothermal Research, Journal of Seismology).
- Editor of the Geophysical Research Letters (Solid Earth) (2001-2007)

Affiliations, Committees and Scientific Consulting

- Member of *American Geophysical Union* (since 1994)
- Member of *Seismological Society of America* (since 1994)
- Member of the Scientific Committee of *GNDT-CNR (Gruppo Nazionale Difesa dai Terremoti)*, Rome, Italie.(1997-1998)

- Member of the Commission for the redaction of the I Framework Program (1999-2001) of *GNDT-ING (Gruppo Nazionale Difesa dai Terremoti)*, Rome, Italy.(1999)
- Consultant and project reviewer for *IFREMER*, Brest, France (since 1996).
- Consultant for *ENTERPRISE OIL Italiana*, Rome, Italy (since 1998).
- Consultant for *ENEL Green Power*, Pisa, Italy (since 2002)
- Member of the evaluation committee (foreign expert) of the laboratory *LGIT-Grenoble*, France (2002)
- Member of the Scientific Committee of the *Istituto Nazionale di Geofisica e Vulcanologia (INGV)*, Rome (since 2001)
- Member of the Scientific Council of the Campania Regional Center *AMRA (Analysis and Monitoring of the Environmental Risks)* (since 2002)
- Consultant for *AMRA scarl* (public consortium on Analysis and Monitoring of Environmental Risks)
- Member of the Scientific Committee of the *Istituto Nazionale di Oceanografia e Geofisica (OGS)*, Trieste (since 2005)
- Member of PhD Evaluation Committee in Italy and France.
- Coordinator of the Doctorate School on Geophysics for the Università di Napoli “Federico II” (consortium Universities of Naples, Bologna, Rome III and INGV) (since 2001)
- Coordinator of the Doctorate School on Seismic Risk of the Università di Napoli “Federico II”

Award

Medal of “Commendatore della Repubblica” awarded by the President Giorgio Napolitano for scientific merits (2007)

Main Research Project funded

1999 -2000 TOMOVES, The Internal Structure of Mt. Vesuvius through 3D High Resolution Seismic Tomography.(EU - €500.000 - Scientific coordinator of the project)

1999-2004 SERAPIS, Integrated seismic methods to investigate the structure of the Campi Flegrei Caldera, (EU - € 800.000 - Scientific coordinator of the project)

2002-2006 SISMA, Marine Monitoring System/New technologies for recording, analysing and monitoring of environmental parameters. (National Project - € 600.000 - Scientific coordinator of a research unit)

2004-2007 SPICE, Seismic wave Propagation and Imaging in Complex media: a European network. (EU - € 340.000 - Scientific coordinator of a research unit)

2005-2009 STSS-500, Simultaneous stereoscopic three-dimensional sonar at 500 kHz. (National Project - € 735.000 - Scientific coordinator of research unit Università di Napoli)

2006-2008 V4, Conception, verification and application of innovative techniques to study active volcanoes (National Project - € 785.000 -Scientific coordinator of the project)

2006-2009 SAFER, Seismic Early warning for Europe (EU - €149.000 - Scientific coordinator of the workpackage 2)

2008-2010 S5, High-resolution multi-disciplinary monitoring of active fault test-site areas in Italy (National Project - € 80.000 - Scientific coordinator of a research unit)

2008-2010 V5, SPEED (National Project - € 60.000 - Scientific coordinator of a research unit)

2009-2013 GEISER, Geothermal Engineering Integrating Mitigation of Induced Seismicity in Reservoirs (EU - € 250.000 – Scientific coordinator of a research unit)

Since 2003 ISNet, Irpinia Seismic Network. (EU - € 1.200.000 - Scientific coordinator of the project)

Training and Mobility Research Programme funded/ Post-doc supervised

- Emmanuel Auger on topic «The use of seismic methods in heterogeneous media: The study of Mt. Vesuvius structure», currently at Magnitude (France);
- Jean Battaglia on topic «Merging active and passive data sets in 3D travel-time tomography», currently at CNRS – Observatoire de Physique du Globe de Clermont-Ferrand (France);
- Marie-Lise Bernard on topic «Study the attenuation properties of volcanic rocks at macroscopic and laboratory scales»; currently at UFR Sciences Exactes et Naturelles, Université Antilles-Guyane (France)
- André Herrero on topic «Arrival time inversion for seismic tomography: The study of Mt. Vesuvius structure»; currently at INGV (Italy)
- Sebastien Judenherc on topic «Teleismic and regional wave fields as new constraints for imaging highly heterogeneous media: application to the bay of Naples area (Italy)», currently at Agecodagis sarl (France);
- Nils Maercklin on topic «Development and application of innovative tools for a refined seismic imaging of the volcanic structure », currently at my research group RISSCLab;
- Stefan Nielsen on topic «Etude de la rupture sismique par methods d'inversion non linéaire», currently at INGV (Italy).

10-Year-Track-Record

Research Impact

As for measurements of impact of Aldo Zollo' research: the H-index for publications is 22 over the period 1990-2010, with an average of 6 papers (on peer-reviewed journals) per year since 2000, with sum of 542 times cited in the same period and a total of 1250 citations in about twenty years.

Ten selected publications since 2000 (excluding self-citations)*

*for a complete list , see http://people.na.infn.it/~zollo/new_web_page/International_Journals.htm

1. Capuano P., Zollo A., Emolo A., Marcucci S. and Milana G., Rupture mechanism and source parameters of Umbria-Marche mainshocks from strong motion data, *J. Seism.*, 4, 4, 463-478, 2000 **(28 citations)**
2. Auger E., Gasparini P., Virieux J. and Zollo A., Seismic evidence of an extended magmatic sill under Mt.Vesuvius, *Science*, 294, 1510-1512, 2001 **(60 citations)**
3. de Lorenzo S., Zollo A. and Mongelli F., Source parameters and 3-D attenuation structure from the inversion of microearthquake pulse width data: Qp imaging and inferences on the thermal state of the Campi Flegrei Caldera, *J. Geophys. Res.*, 106,B8, 16265-16286, 2001 **(18 citations)**
4. Lomax A., Zollo A., Capuano P. and Virieux J., Precise, absolute earthquake location under Somma-Vesuvius volcano using a new 3D velocity model, *Geophys. J. Int.*, 146, 313-321, 2001 **(34 citations)**
5. Zollo A., D'Auria L., et al., Bayesian estimation of 2-D P-velocity models from active seismic arrival time data: imaging of the shallow structure of Mt.Vesuvius (Southern Italy), *Geophys. J. Int.*, 151, 566-582, 2002 **(17 citations)**
6. Zollo A., Marzocchi W., Capuano P., Lomax A. and Iannaccone G., Space and time behaviour of seismic activity at Mt.Vesuvius volcano, Southern Italy, *Bull.Seism.Soc.Am.*, 92, 2, 625–640, 2002 **(16 citations)**

7. Zollo A., Judenherc S. and 9 others, Evidence for the buried rim of Campi Flegrei caldera from 3-d active seismic imaging, *Geophys. Res. Lett.* 30, 19, doi:10.1029/2003GL018173, 2003 **(16 citations)**
8. Judenherc S. and Zollo A., The Bay of Naples (Southern Italy): constraints on the volcanic structures inferred from a dense seismic survey, *J. Geophys. Res.*, 109, B10312, doi:10.1029/2003JB002876, 2004 **(19 citations)**
9. Zollo A., Lancieri M. and Nielsen S., Earthquake magnitude estimation from peak amplitudes of very early seismic signals on strong motion records, *Geophys. Res. Lett.*, Vol. 33, No. 23, L23312, 10.1029/2006GL027795, 2006 **(14 citations)**
10. Zollo A., Maercklin N. et al., Seismic reflections reveal a massive melt layer feeding Campi Flegrei caldera, *Geophys. Res. Lett.*, 35, L12306, doi:10.1029/2008GL034242, 2008. **(5 citation)**

Research monographs since 2000

1. Capuano P., Gasparini P., Zollo A., Virieux J., Casale R., Yeroyanni M. (eds), *The Internal Structure of Mt. Vesuvius through 3D High Resolution Seismic Tomography*, Liguori ed. Napoli, pp.: 612, ISBN: 88-207-3503-2, 2003
2. Pecce M., Manfredi G. and Zollo A. (eds.), *The many facets of seismic risk*, Università di Napoli Federico II – CRdC AMRA, pp.191, 2004
3. Marzocchi W. and Zollo A. (eds.), *Conception, verification and application of innovative techniques to study active volcanoes*, DoppiaVoce ed. Napoli, pp.495 ISBN 978-88-89972-09-0, 2008
4. Zollo A., Capuano P. e Corciulo M. (eds.), *Geophysical Exploration of the Campi Flegrei (southern Italy) caldera ' interiors: Data, Methods and Results*, DoppiaVoce ed. Napoli, pp 220, ISBN978-88-89972-04-5, 2006
5. Zollo A., Emolo A., *Terremoti ed onde: Introduzione alla sismologia*, Liguori Ed, Napoli, in press

Chapters in collective volumes since 2000 – (incomplete list)

1. Zollo A., Dello Iacono D., Judenherc S., *Structure of Campi Flegrei caldera: new insights from the inversion of first P-arrival times of Serapis experiment*, in *Geophysical Exploration of the Campi Flegrei (Southern Italy) Caldera' Interiors: Data, Methods and Results*, A. Zollo, P. Capuano, M. Corciulo (eds.), 2006
2. Maercklin N., Zollo A., *Analysis of PS-to-PP amplitude ratios for seismic reflector characterisation: method and application*, in *Conception, verification and application of innovative techniques to study active volcanoes*, Marzocchi W. and Zollo A., ISBN 978-88-89972-09-0, 2008
3. Vanorio T., Virieux J., Zollo A., Capuano P., Russo G., *A Rock Physics and Seismic Tomography Study to Characterize the Structure of the Campi Flegrei Caldera* in *Conception, verification and application of innovative techniques to study active volcanoes*, Marzocchi W. and Zollo A., ISBN 978-88-89972-09-0, 2008
4. Zollo, G. Iannaccone et al., *The Earthquake Early Warning System in Southern Italy*, in "Complexity in Earthquakes, Tsunamis, and Volcanoes, and Forecasting and Early Warning of their Hazards", ed. W.H.Lee, Springer, in press

Invited lectures since 2000

2002 LXXXVI National Congress of Italian Physics Society, Palermo, Italia

2002 International School of Geophysics, 22nd Course, Erice, Italy

2003 European Geophysical Union, Nice, France.

2003 IUGG General Assembly, Sapporo, Japan

2009 IASPEI General Assembly, Cape Town, South Africa

2010 European Seismological Committee , Montpellier, France

Research expeditions since 2000

2001 SERAPIS - SEismic Reflection/Refraction Acquisition Project for Imaging complex volcanic Structures, funded by National Group of Volcanology and National Civil Protection

2003 ISNet - Irpinia Seismic Network, funded by European Union

2008 CUMAS – **Cabled Underwater Module for Acquisition of Seismological data**, funded by Ministry of University and scientific and technological research

Organisation of International conferences since 2000

2003 International Workshop on “Multidisciplinary approach to seismic risk problem”, Italy

Awards since 2000

2007 Awarded the honour of “Commendatore della Repubblica Italiana” for scientific merits by the President Giorgio Napolitano

Memberships to Editorials Boards of International Journals since 2000

2001 (up to 2008) Editor of the Geophysical Research Letters