

**Marco Giardino**, born in Turin, Italy on July 3<sup>rd</sup>, 1961.

#### Current Position

2010 – to date Associate Professor, permanent position, in the Scientific Disciplinary Sector of Physical Geography and Geomorphology at the Earth Science Department of the University of Torino. Professor of Geomorphology and Applied Geomorphology at the Faculty of Mathematical, Physical and Natural Sciences of the University of Torino.

2013 Italian National Abilitation to Full Professorship (“Abilitazione nazionale a professore di 1a fascia - tornata 2013), Scientific sector 04/A3 - GEO/04.

#### Past Positions

2009-2010, visiting scientist at the Earth Sciences Department, Simon Fraser University, Burnaby, Canada.

1999-2010, assistant professor at the University of Turin, Department of Earth Sciences.

1995-1997 researcher at the CNR National Research Council, Centre for the Study of Geodynamics, Italy.

1992-1993 visiting scientist at the U.S.G.S. - Branch of Earthquake and Landslide Hazard Golden, Colorado, USA.

#### **Research interest**

His research activities covers most fields of scientific-disciplinary sector of Physical Geography and Geomorphology: the study of the morphodynamics of alpine relief; analysis of geomorphological hazards and risks (slope instability, glacial dynamics), but especially: the study of geomorphological and geological heritage, in order to preserve the Geodiversity and to develop effective strategies for geoconservation. In the various issues the candidate has developed its own unique approach, by using of innovative technological tools for the collection and dissemination of scientific data. On these issues, he was Principal Investigators/Head of Research Unit in several projects: PRIN 2004 (Il patrimonio geomorfologico come risorsa per un turismo sostenibile), EU- Interreg IIIA Italia Francia 2003-2005 (I Monti nati dal Mare: Geologia e Turismo fra Dora e Durance), JCAPC 2011 (Proactive Management of Geological Heritage in the Piemonte Region), MIUR- Legge 6/2000 bando 2012 (GeoMedia-web: multimedia and networks for dissemination of knowledge on geoheritage and natural risk).

#### **Research Programs and Activities**

1999 – 2008 Research activities in the Earth Sciences Department, University of Torino:

- Participant in Physical Geography and Applied Geomorphology projects financed by University of Torino (“Ex 60%” annual funds). Coordinators: B. Franceschetti (1999- 2002), A. Biancotti (2004 e 2005) and M. Fornaro (2008).

- Coordinator of “Ex 60” annual funds projects: 2003) Large slope instabilities; 2006) Georesources and geohazards in the Alpine environment; 2007) “Innovative tools for the analysis and representation of geomorphological assets and hazards in the Alpine environment”.

2001-2006 Author of monographs on the natural history and the Geoheritage of valleys (Arve, Sangone, Susa, Aosta) in the Western Alps. The volume on the territory of the Torino 2006 Winter Olympic Games won the FIST-Geoitalia Contest for the best geosite publication.

2002-2004 MIUR PRIN-Cofin 2002 National Project: "Landslide activity and climate changes": participant and then scientific coordinator of the Univ. of Torino Research Group (National Coordinator: M. Soldati).

Since 2002 IFFI Project (National Inventory of Landslides in Italy): scientific coordinator for the Aosta Valley Autonomous Region.

2003-2005 EU INTERREG III A (Italy-France) Project “Mountains born for the sea – Geotourism activities in the Montgenevre area”. ( <http://www.imeridiani.net/monti.htm> ). Scientific coordinator and author of field trip books and videos.

2004-2006 MIUR PRIN-Cofin 2004 National Project "The Geomorphological patrimony as a resource for a sustainable tourism": Scientific coordinator for the Univ. of Torino Research Group (National Coordinator: M. Panizza).

2006-2007 Scientific Coordinator for the Aosta Valley ARPA-University of Torino joint activities in the EU INTERREG IIIA Project 196 "PERMAdataROC": creation of a database, data analysis and experimentation of methodologies and instrumentation for measuring rock fall activity and thermal regimes of high mountain rock walls under permafrost conditions. Participated in the analysis of the present-day factors conditioning block/rockfalls and rock avalanches phenomena on steep, high-altitude rock walls (Matterhorn).

Since 2007 Participant to geomorphological mapping and remote sensing studies for the research projects: "Geosites of the Langhe-Monferrato Hills" (Regione Piemonte and Ente Parch Astigiani) and "Geotouristic map of the Middle Tanaro Valley" (Museo Regionale di Scienze Naturali).

Since 2007 Participant in the activity of ITHACA, an ONU-WFP (World Food Program) research unit to support humanitarian intervention during natural disaster. Author of regional geomorphological mapping by remote sensing of fluvial landforms and natural hazards related to major floods (Mozambique, Korea, Myanmar) and application of mobile-GIS for management of disaster data and emergency relief (Haiti earthquake, 2010, in cooperation with AGIRE Onlus and others NGOs).

2008-2009 Visiting Scientist, Centre for Natural Hazard Research, Simon Fraser University, Burnaby, BC. Canada. A six-month period was financed by the World Wide Style program of international exchanges. Research included the study of large, deep-seated slope instabilities in Western Canada and comparison to situations in the Italian Alps. (Collaborative project with Drs. J. Clague and D. Stead). During the tenure of the visit Drs. M. Giardino and J. Clague were responsible for the development of scientific program forming part of an international agreement between Simon Fraser University (Faculty of Science) and Università degli studi di Torino (Facoltà di Scienze M.F.N.) to improve knowledge, skills and approaches required for the study, assessment and management of natural hazards, in particular those induced by climate change in mountain regions.

2009-2012 EU INTERREG IIIA (2009-2012, Alcotra): "RiskNat" Attività B.1-C.1. Responsible researcher for the Centro Funzionale of Aosta Valley Region in the B.1.3 work-package ("Regional analysis of slope instabilities of high mountains").

2010-2011 Coordinator of Research Contract PROG100783 (Univ. Torino): New techniques for cartography data and remote sensing digital images processing to produce popular multimedia material in Earth Sciences communication and museum field.

2011-2015 Coordinator of the ProGEO-Piemonte project - JCAPC University of Turin - Compagnia di San Paolo "Progetti d'Ateneo 2011" (ORTO11Y7HR): PROactive management of GEOlogical heritage in the PIEMONTE region: innovative methods and functional guidelines for promoting geodiversity knowledge and supporting geoconservation activities (PROGEO-Piemonte). Cfr. [www.progeopiemonte.it](http://www.progeopiemonte.it).

2011 - 2015 Coordinator of the Research project on "Collaborative management of data for geological monitoring and civil protection" co-financing plan by "Progetto Giovani" of CRT Bank Foundation and Università degli Studi di Torino.

2013 – to date Coordinator of National Project "GeoMedia-web": (multimedia and network for spreading awareness on geoheritage and Geological Risks) (Accordi di Programma "LEGGE 6/2000" - D.D. 369 del 26/06/2012 - ACPR12\_00248).

### **Services to the Scientific Community**

In 2001 he founded the Laboratory of geothematic Cartography and Geographic Information Systems (GeoSitLab). In 2007 he founded IMAGEO, Spin-off Company of the University of Torino in the field of innovative methods for geological and geomorphological research. Since 2003 he is co-opted member of the Italian Glaciological Committee and a member of several scientific societies (AEGS, AIGEO, EGU, G&T, IAEG, SGI, GeoProgress). Since 2008 he has been secretary of the Association of European Geological Society (AEGS), and in 2013 co-chair of the IAG / AIG Working Group on Evaluation for Landform Geodiversity.

### **Educational Activities**

In addition to the research activities he devotes much attention to the problems of teaching and scientific popularization: since the academic year 1999-2000, he is assistant professor at the Faculty of Mathematical, Physical and Natural Sciences of the University of Turin (Applied Geomorphology, Geomorphology, Geodynamics and Morphogenesis) from the same academic year he is teaching "Dynamics and environmental risk in the Earth Sciences" at the Inter-School "SIS-Piemonte." In the field of Higher Education is a member of the Faculty Council of the Graduate School of Science and High Technology of the University of Turin, as well as lecturer in courses and excursions on geomorphological issues. Since 2009 he is the coordinator of the European project EU-Canada Transatlantic Exchange Partnership "geoNatHaz" of university exchanges and high-level training in the field of Earth Sciences. ([www.geonatnaz.unito.it](http://www.geonatnaz.unito.it)).