

PREFACE

This Special Volume presents the proceedings of the International Workshop of the COST Action No. 625 “3-D monitoring of active tectonic structures”, held in Granada on May 12 - 16, 2004 and sponsored by the European Community and University of Granada. This session was organized and convened by Jesús Galindo-Zaldivar, Antonio Gil, Carlos Sanz de Galdeano and was intended to present activities of the COST Action as well as stimulate researches and collaborations in different aspects of the analysis and monitoring of active faults. The in-door session was followed by a two-day field trip in Southern Spain (Almeria region) where fault zones are nicely exposed.

COST is an intergovernmental framework for EUROPEAN CO-OPERATION IN THE FIELD OF SCIENTIFIC AND TECHNICAL RESEARCH, allowing the co-ordination of nationally funded research on a European level. Founded in 1971, COST is the oldest and widest European intergovernmental network for cooperation in research, and COST Actions cover basic and pre-competitive research as well as activities of public utility. COST has a geographical scope beyond the EU. The most of the Central and Eastern European countries are members, but also participation of institutions from non-COST member states is welcome. From 2004 it is the European Science Foundation (ESF) who provides the administrative and scientific management for COST.

Started in 2000, the COST ACTION 625 “3D MONITORING OF ACTIVE TECTONIC STRUCTURES” (<http://fir.seismology.hu/cost625/index.html>) aims at establishing a network of scientists and laboratories focusing on the study and instrumental monitoring of active tectonic structures in Europe and Mediterranean area. More than 20 countries and 25 laboratories are presently participating to this network, actively carrying out researches in collaboration in different key areas. Because of its large participation, COST Action 625 is one of the more extended network of laboratories specifically devoted to the study and monitoring of active faults and seismogenic structures. The end of this specific Action is foreseen for 2006, but many other research projects between partners have been established, or are under development, thanks to this collaboration.

Many test areas have been selected in Europe for interdisciplinary study (located in Italy, Slovenia, Hungary, Poland, Czech Rep., Slovakia, Romania, Bulgaria, Greece and Spain) and are now undergoing integrated analysis and monitoring combining different methodologies and techniques, which range from geological, tectonic and geo-structural analysis, paleoseismological investigations, high resolution seismic reflection profiling, detailed geodetic and GPS monitoring, surveys and studies on seismicity, earthquake prediction analysis, mechanical extensimetric monitoring, magnetotelluric and geo-electrical analysis, analogue and numerical modelling, aerial LIDAR (Light Detection And Ranging) measurements, and others. Besides the betterment of knowledge on active tectonics and seismotectonic processes, the development of these researches is also helping to set to the point new monitoring instrumentation, and related software, aimed at the detection of tectonic movements, or to test the already existing ones. The researches carried out in the framework of this network will improve knowledge in the field of seismic hazard assessment as well as in the understanding of present day deformation and geodynamics of the European/African/Arabian collision zone.

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Guest editors