

Preface

On the occasion of the 12th International Workshop on Seismic Anisotropy, which was held in the Leisure City Conference Center in Beijing, China, at the end of October 2006, numerous high quality contributions (65 oral presentations and 40 posters) were presented in relation to the pertinent topics. The symposium addressed progress in estimation of anisotropic parameters, cracked, fractured and porous media, fluid effects, attenuation anisotropy, data inversion and imaging in zones of complex structure, stress dependence and natural hazard, among other topics, from several seismological viewpoints. The aim of the event was to present and discuss techniques and results obtained from seismological observations on local and regional scales. The event sought to bring together results of diverse studies of this type.

The symposium was well attended (110 participants coming from 20 countries) with an active audience and the debate following the presentations was lively. It was a stimulating meeting that illustrated very interesting aspects of one of the most informative properties of earth materials – anisotropy – and provided insight into new methodological developments, numerical methods, applications to data from various environments, case studies and investigations of distinct domains at all length scales. Topics tackled in the course of the meeting included modelling and applications concerning emerging problems providing innovative solutions and images for interpretation, and reviews of recent results, limitations, implications and perspectives.

A small selection of contributions reporting relevant and updated studies presented at the workshop is provided in this issue: from an overview of seismic anisotropy determined from earthquakes, and shear-wave splitting in a critical crust, up to anisotropy in exploration seismics. The papers reflect the broad scope of recent seismic investigations to provide quantitative descriptions of anisotropic background media. Some papers illustrate fundamentals, whilst others analyse and interpret conspicuous anisotropic features detected in different areas, obtained after a rigorous examination of the available data.

There is still scope for the improvement of research methods, exploration techniques and further studies, despite their long-standing use.

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