



The Establishment of an Operational Earthquake Forecasting System in Italy

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Just after the Mw 6.2 earthquake that hit L'Aquila, on April 6 2009, the Civil Protection nominated an International Commission on Earthquake Forecasting (ICEF) that paved the way to the development of the Operational Earthquake Forecasting (OEF), defined as the "procedures for gathering and disseminating authoritative information about the time dependence of seismic hazards to help communities prepare for potentially destructive earthquakes". In this paper we introduce the first official OEF system in Italy that has been developed by the new-born Centro di Pericolosità Sismica at the Istituto Nazionale di Geofisica e Vulcanologia. The system provides every day an update of the weekly probabilities of ground shaking over the whole Italian territory. In this presentation, we describe in detail the philosophy behind the system, the scientific details, and the output format that has been preliminary defined in agreement with Civil Protection. To our knowledge, this is the first operational system that fully satisfies the ICEF guidelines. Probably, the most sensitive issue is related to the communication of such a kind of message to the population. Acknowledging this inherent difficulty, in agreement with Civil Protection we are planning pilot tests to be carried out in few selected areas in Italy; the purpose of such tests is to check the effectiveness of the message and to receive feedbacks.