

## **probability does not exist: some considerations on seismic risk mitigation**

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Summary – The aim of this paper is to develop some considerations on seismic risk mitigation, with particular reference to:

- \* the role of deterministic and probabilistic methods and the importance of their integration in hazard assessment.
- \* the problem of the comparison between alternative probabilistic models, stressing the importance of paying more attention to the believability of the used models than to the result's validation. A possible procedure to check the believability of the model is suggested;
- \* the decisional process when dealing with events characterized by low probability of occurrence and by catastrophic consequences; it is important to stress the need of a clear distinction of the three components of the process: the modelling (risk evaluation with the related uncertainties), the decisional procedure (comparison of risk level, uncertainties, aims, costs and benefits connected with possible alternative decision) and finally the decision aimed to the risk mitigation.

The risk mitigation procedure should imply that all steps of the decision process must be clearly explained to all persons involved, including population.