Int J Fract (2008) 154:1
DOI 10.1007/s10704-008-9281-8

EDITORIAL

Physical aspects of fracture scaling and size effect

Monte Verità, Ascona, Switzerland, March 9–13, 2008

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Received: 3 November 2008 / Accepted: 3 November 2008

In March 2008 about 45 scientists gathered for a week in the Centro Stefano Franscini, the conference venue of the ETH in Zurich near Ascona in the south of Switzerland, to discuss various aspects of fracture scaling and size effect. Main emphasis was on the fracture of materials with a heterogeneous (or disordered) material structure. Actually depending on the scale of application any material may eventually appear to have a heterogeneous material structure and be subject to closer scrutiny of the scaling and size effects. The meeting consisted of mostly invited lectures by well-known active researchers in the field. In total 15 contributions are included in this special issue of *International Journal of Fracture* giving a good overview of the various aspects of fracture scaling that were subject to debate in Monte Verità. These aspects include global approaches to describe size effects in concrete and rock (mostly based on energetic considerations), lattice-type modeling of scaling behaviour, relations between fracture roughness and size effect, time effects on fracture scaling and environmental influences like drying shrinkage, self-healing and the like. We hope that the contributions in this special issue may be of interest to researchers engaged in the important field of scaling and size effects on fracture.

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