

COMPUTATIONAL DAMAGE AND FRACTURE MECHANICS

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ABSTRACT

The accurate and realistic modeling of inelastic behavior, damage and fracture processes of various materials is extensively discussed in the literature. Many continuum approaches have been presented and their efficiency has been demonstrated in different applications in a wide range of engineering fields. Due to intensive research activities during the last years, damage and fracture models have now reached a high level of quality. To be able to numerically analyze challenging engineering problems in an efficient and accurate manner, different modified and new techniques in computational mechanics as well as many robust numerical algorithms have been recently developed. A variety of continuum models and corresponding numerical aspects as well as current and future trends in computational damage and fracture mechanics will be discussed in the proposed mini-symposium.