

**10<sup>th</sup> World Congress on Computational Mechanics 2012**  
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## **Cohesive Zone Models – Fundamentals and Multiscale Applications**

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Cohesive zone models are versatile and effective tools for computational simulation of various separation phenomena in materials. We welcome papers that present theory and applications of cohesive zone models at any length and time scales, from atomistic and molecular to microstructural and phenomenological models. The goals of this minisymposium are to represent the state of the art in cohesive zone modeling, to describe opportunities for new applications, and to expose open questions in the supporting theory and algorithms, especially those involving multiscale modeling. It will cover a range of applications, including fracture of advanced materials such as functionally graded, nano-composites and bio-materials, ductile crack growth and rupture, creep damage and fracture, fatigue, cutting, dynamic crack propagation, microbranching, fragmentation, and experimental determination of cohesive models.

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