

Propuesta de organización de sesión temática

Congreso de métodos numéricos en ingeniería 2013, Bilbao.

Título de la sesión:

ST 19: Métodos computacionales en mecánica experimental / Computational methods in experimental mechanics

Coordinadores (en orden alfabético):

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Breve resumen:

Finite element computation is the most popular numerical technique for engineers and scientists. With the use of high-performance computers, the tool has greatly widened the scope of engineering problems amenable to numerical analysis. In looking at trends, the need for numerical simulation is increasing because it is one of the most powerful tools in developing a deeper understanding of the effects of variables on a system. Empirical and experimental methods are expensive and considered as a complement for validating purposes.

The aim of this thematic session is to promote pedagogical, technical and practical advances in experimental mechanics, improving and assessing new analytical and computational approaches.

It will be focused on practical applications of experimental mechanics and innovative techniques used to create engineering solutions. This includes, but is not limited to, experimental observations and methods, analytical or computational methods linked to observations of physical phenomena, and non-deterministic analysis of experimental observations. We would also encourage the submission of works that describe approaches to education and training in experimental mechanics and structural dynamics.