11th. World Congress on Computational Mechanics (WCCM2014)
5th. European Conference on Computational Mechanics (ECCM V)
6th. European Conference on Computational Fluid Dynamics (ECFD VI)
July 20 - 25, 2014, Barcelona, Spain

MESH GENERATION AND ADAPTION

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Key words: Mesh generation, mesh adaption, mesh quality, mesh optimization, anisotropic meshing.

ABSTRACT

Mesh generation and adaption is a key step in the application of the Finite Element Method to applied sciences and engineering. During the last decades a wide range of methods has been developed to generate and adapt meshes. However, the maturation of new numerical formulation and the advances in computer hardware have posed new requirements and challenges that classic methods can not accomplish. Thus, the aim of this session is to bring together scientist and researchers interested in the development of new meshing technologies that best fit numerical simulation requirements. The topics of this session includes, but is not restricted to, the following list:

- Triangular and tetrahedral mesh generation.
- Quadrilateral and hexahedral mesh generation.
- Surface meshing.
- Mesh refinement and adaption.
- Mesh optimization and quality improvement.
- Anisotropic meshing.
- Meshing and High Performance Computing.