

MESH GENERATION AND ADAPTATION TRACK NUMBER 700

Guilmer González Flores^{*}, Francisco Domínguez–Mota[†]

^{*} Departamento de Matemáticas, Facultad de Ciencias, UNAM
Av. Universidad 3000, Circuito Exterior S/N, Delegación Coyoacán, C.P. 04510,
Ciudad Universitaria, CDMX, México
guilmerg@ciencias.unam.mx, <https://sites.google.com/site/guilmerg/>

[†] Facultad de Ciencias Físico Matemáticas, Universidad Michoacana de San Nicolás de Hidalgo
Avenida Francisco J. Múgica S/N Ciudad Universitaria C.P. 58030, Morelia, Michoacán, Mxico.
francisco.dmota@gmail.com, <https://www.researchgate.net/profile/Francisco-Dominguez-Mota>

Key words: Mesh generation, mesh adaption, mesh quality, mesh optimization

ABSTRACT

Mesh adaptation, some times referred to as Adaptive Mesh Refinement (AMR), refers to the modification of an existing mesh to accurately discretise differential equations. Generally, the goal of these modifications is to improve the resolution of numerical solutions without an excessive increase in computational costs.

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.

Some topics of this session includes:

- Triangular and tetrahedral mesh generation.
- Quadrilateral and hexahedral mesh generation.
- Surface meshing.
- Mesh refinement and adaption.
- Mesh optimization and quality improvement.