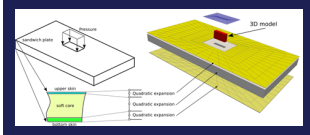
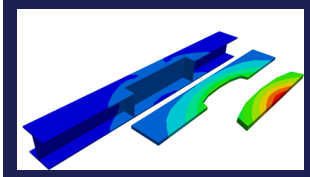
AIDAA
Educational Series
& Academy

GLOBAL-LOCAL ANALYSIS TECHNIQUES FOR METALLIC AND COMPOSITE STRUCTURES



The course aims to introduce the global-local analysis of metallic and composite structures. Advanced materials, such as composite and smart materials, are commonly used in aerospace applications. These materials can lead to local singularities that require refined models to be investigated. The course will introduce the main approaches used to increase the model fidelity locally. At first, typical global-local problems are presented and discussed. Then, a detailed overview of the main techniques proposed in academia and by commercial codes are presented. Finally, an advanced global-local approach based on variable kinematic models is introduced. Applications and numerical test cases are used to present each approach.

Learning objectives:
- Use of higher-order models for composites and metallic structures
- Pro/Cons of the global/local techniques
- Global/local techniques using commercial software
- ·Recent developments in the global/local method



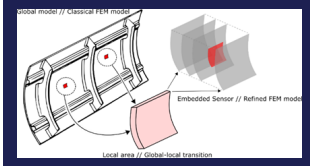
Target audience: doctoral students, non-academic professionals, and undergraduate students.

Dates and time: 14 September, 9-12 CEST; 15-17 September 9-13 CEST

Speaker

Enrico Zappino is an Assistant professor at the Politecnico di Torino. He has been in Professor Carrera's research group since 2010. He obtained his PhD in April 2014, presenting a thesis on variable kinematic 1D, 2D, and 3D models to analyse aerospace structures. His research activities concern structural analysis using classical and advanced models, multi-field analysis, composite materials analysis and virtual manufacturing. He is the co-author of more than sixty works published in several international peer-reviewed journals.

Registration and Webinar Platform



The registration is mandatory via the online form at the web link.
Deadline: 10 September 2021
Fees: there are no registration fees for AIDAA members. Instructions to become a member can be found here: https://www.aidaa.it/become-a-member/
Webinar platform: Webex, a link will be sent via email a few days before the event.