

PhD seminars in Biomedical Engineering

WORKING WITH ANSYS TOOLS FOR STRUCTURAL APPLICATIONS

WORKBENCH MECHANICAL, MECHANICAL APDL AND USER-PROGRAMMABLE FEATURES (UPFS)

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Biosketch

Davide Fugazza works for Ansys Italia as a Principal Application Engineer.

His main duties include technical support for structural mechanics applications, presales activities as well as leading a group of people testing assemblies consisting of beam and shell elements.

Over the years he has delivered many standard and customized training classes across Europe and contributed to writing new training material on advanced material models and user-programmable features.

Prior to returning to Italy, he was an employee of Ansys Belgium for 10 years.

Abstract

Finite element analysis has become a widely used tool for studying complex multiphysics problems in areas that span from aeronautics to biomechanics. In this regard, most simulations required the user to implement specific features (a particular constitutive model or non-standard boundary conditions among others) within a specific finite element software to perform the simulation.

Ansys is among the most widely used finite element software to date. This two hours workshop has two objectives:

- present both the Ansys Workbench Mechanical and the Mechanical APDL environments and their main characteristics,
- 2. give an overview of User-Programmable Features, a technology that allows users to implement their own routines into the Ansys software.

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