

# Università degli Studi di Pavia

Dipartimento di Meccanica Strutturale

In collaborazione con

Centro di Simulazione Numerica Avanzata – CeSNA

Istituto Universitario di Studi Superiori

## COMPUTATIONAL BIOMECHANICS

Within the Course of Biomechanics (Bachelor degree): Tuesday, April 7, Aula A3, 14.00 – 16.00

**An introduction to Computational Biomechanics:** The lecture illustrates how computer simulations can assist medical doctors in the planning of surgery and/or the choice of which implant for which patient. The groundrules for performing accurate and realistic computer simulations are explained.

Within the Course of Modeling of Biological Materials (Master): Tuesday, April 7, Aula MS1, 9.00 – 11.00

**General aspects of endovascular stents: from design to clinic:** The lecture provides a brief overview of cardiovascular diseases and their treatment. Subsequently the (bio)mechanics of stents are explained and the important role computer simulations can play in their design is enlarged upon.

*Dr. Matthieu De Beule  
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*Matthieu De Beule is a post-doc at IBiTEch, Ghent University, Belgium and is mainly interested in computational biomechanics. His research focuses on the design of medical devices (e.g. stents) and the optimization of surgical procedures. For further informations contact Michele Conti (micheleconti82@gmail.com).*