Physical Sciences Seminar

Blood is a Special Juice:The Challenges of Reality and Simulation for Blood Trauma and Blood Coagulation

Heinrich Schima

Center for Medical Physics and Biomedical Engineering, Med. Univ. Vienna

Host: Björn Hof

A detailed understanding of the mechanisms of blood trauma and blood coagulation as potential cause for infarcts, strokes and bleedings is extremely important for cardiovascular medicine and the design of cardiovascular medical devices. However, blood has to be considered as a whole organ. The complex interactions between blood components and the vascular wall respectively artificial prosthetic surfaces can be seen from many different perspectives. Therefore, also very different numerical and in-vitro models are applied to improve the understanding and to obtain guidelines for the therapy and the device design. The lecture shall discuss some basic mechanisms of blood trauma and coagulation, and approaches for their ex-vivo, in-vitro and in-silico modelling. Prof. DI. Dr. Heinrich Schima is working at the Center of Med.Phys. and Biomed.Eng and the Department of Cardiac Surgery at the Medical University Vienna. His main focus is the development and clinical application of cardiovascular implants, particularly pumps to support the failing heart. Important Note: If you have special Interest in this topic, the World Congress for Artificial Organs, where more than 40 contributions to this topic will be provided, takes place from Sept. 6-9, in Vienna. Further Informations are available at www.esao2017.org

Monday, September 18, 2017 11:00am - 12:00pm

Mondi Seminar Room 1, Central Building

This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station. Please find a schedule of the ISTA Shuttle on our webpage: https://ista.ac.at/en/campus/how-to-get-here/ The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.

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