CompBioMed

A Centre of Excellence in Computational Biomedicine

Webinar series

Webinar #7: Sensitivity analysis of a strongly coupled cardiac electro-mechanical model

20 March 2019

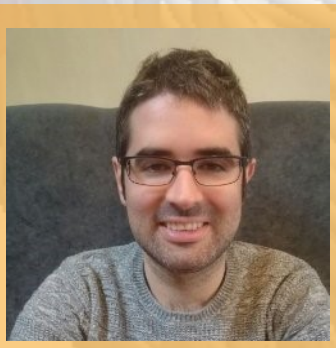
3pm CET (1 hour duration)

Register here: https://attendee.gotowebinar.com/register/4236185602589707523

This webinar describes the computational implementation of a complex and physiologically-detailed cardiac electro-mechanical model for human hearts. The model was developed within the framework of Alya, Barcelona Supercomputing Center's HPC-based multi-physics software, and making use of the computational resources obtained from the PRACE project (pr1efz00). Some examples of ventricular geometries (monoventricular and biventricular) are presented and the results of a global sensitivity analysis, which evaluate the sensitivities of clinically relevant quantities of interest, are also shown.

This is the 7th of a series of webinars that CompBioMed organises in collaboration with the VPH Institute.

Watch the full series on www.compbiomed.eu/training!



Dr. Francesc Levrero-Florencio (University of Oxford) Research Associate in Computational Cardiovascular Science (CCS), finished his PhD in Civil Engineering at the University of Edinburgh in the topic of multiscale solid mechanics and HPC applied to trabecular bone, where he also developed a nonlinear version of ParaFEM, supported through an ARCHER RAP award.

Francesc joined the CCS Group (www.cs.ox.ac.uk/ccs) in November 2016 as part of the CompBioMed project, in close collaboration with the Barcelona Supercomputing Center. His research topic is the study of the multiscale electromechanical behaviour (contractility) of the human heart under healthy and diseased conditions.

Moderated by **Ben Czaja**, University of Amsterdam

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 675451

In collaboration with: VPH Institute