

Eugene Wigner Colloquium

joint event of GRK 1558 and SFB 910



Dr. Steven Niederer

King's College, London, UK

“Modelling Pathological Variations in Time and Space across the Heart”

With each beat the heart contracts, pumping blood up and out around the body. All the cells are rapidly activated and contract with each beat. The breakdown of this spatial regulatory drastically reduces cardiac function and provides a substrate for life threatening arrhythmias. Despite the crucial role of heterogeneities in cardiac function measuring high spatial and temporal resolution gradients in patients remains challenging. This motivates the use of biophysical models to understand the how these gradients develop, are regulated and their effect on cardiac output. This presentation will explore examples of applying multi-scale and multi-physics biophysical cardiac modelling to understand the role, regulation and treatments of cardiac heterogeneities in patients and animal models.

M. Falcke

Thursday, 09.07.15 · 16:15h · EW 202

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