

# Visualisation and Uncertainty in Patient-Specific Whole-Heart Modelling

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<b>Monday 29 May 2017</b>		
12:50: Opening Remarks — Organisers and Christof Schütte (ZIB President)		
13:00–14:30: Session 1: Data and Clinical Challenges		
1.1	Titus Kühne (DHZB) and Leonid Goubergrits (Charité)	The Value of Uncertainty in Clinical Studies: Two Clinical Examples
1.2	Steven Williams (KCL)	Clinical Measurements for Electrophysiology: Golden Standard or Problem Data?
1.3	James Winter (KCL)	Noise, error and uncertainty in cardiac research measurements
14:30–15:00: Refreshment Break		
15:00–16:30: Session 2		
2.1	Julia Schnabel (KCL)	Harnessing uncertainty in medical image registration and segmentation
2.2	Ton Coolen (KCL)	Patient-specific statistical strategies — the evil twins of heterogeneity and overfitting
2.3	Marco Favino (USI & U Lausanne)	Efficient solution strategies for electromechanics in the heart
17:00–18:00: Demonstration of Studio da Vinci (Daniel Baum, ZIB)		
19:00–late: Workshop Dinner at Alter Krug, Königin-Luise-Str. 52, 14195 Berlin		
<b>Tuesday 30 May 2017</b>		
09:00–10:30: Session 3		
3.1	Stefan Zachow (ZIB)	Geometric modelling and automated heart segmentation
3.2	Gernot Plank (UMedGraz)	Image-based learning in predictive models of total heart function
3.3	Jana de Wiljes (Potsdam)	Data assimilation: the seamless integration of data into computational models
10:30–11:00: Refreshment Break		

11:00–12:30: Session 4		
4.1	Hans-Christian Hege (ZIB)	Uncertainty in medical computing
4.2	Steven Gilmour (KCL)	Optimal sampling for complex simulations
4.3	Martin Weiser (ZIB)	Eikonal models accelerating monodomain models for inverse problems and UQ
12:30–13:30: Lunch and Roundtable Discussion		
13:30–15:00: Session 5		
5.1	Pablo Lamata (KCL)	Cardiac morphology biomarkers: providing clinical value
5.2	Alexander Sikorski (FU/ZIB)	An information theoretic approach to non-parametric empirical Bayes methods
5.3	Rashed Karim	Seeing is believing: Flat maps of the heart and other visualisation strategies

All talks will take place in the Lecture Hall of the Zuse Institute Berlin, Takustr. 7, 14195 Berlin (the “J”-shaped building highlighted on the map). Dinner on Monday evening will be held at the Alter Krug, Königin-Luise-Str. 52, 14195 Berlin, which is just off the map, immediately west of the intersection of Königin-Luise-Str. and Fabeckstr.

