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Multiscale image based modelling in biology

Monday, 9 July 2018 09:00 (1 hour)

In this talk I will describe the application of state of the art image based modelling to several seemingly different areas of biology. I show examples from biomedical (lymphatic, vascular and lung system) and agricultural problems of plant soil interaction. I will describe the workflow from imaging (X-ray CT, XRF, SEM-EDX, histology), image reconstruction, image segmentation, computation and how to utilize this work stream to synthesise new scientific knowledge. In particular I will also outline several challenges and bottle necks in this process to hopefully encourage more mathematicians to get involved in the full pipeline.

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