Title: Data-Driven Modeling in Cell Biology

Organizers
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Description
Mathematical and computational approaches have become an important component of the study of complex processes in biology; mathematical modelling and analysis allow for quantitative testing of proposed hypotheses and estimation of important physical and biological parameters. Combining experiments with mathematical modelling allows a rigorous validation of model hypotheses, thereby providing a powerful investigation tool in biology. The focus of this session will be on applications of data-driven modeling to the understanding and design of experiments in cell biology and cell population.

Confirmed Speakers List:
Weitao Chen
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Tentative title: Data-driven multiscale mathematical models of signaling in the maintenance of transcription factor distribution in stem cell homeostasis

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Tentative title: Data driven modeling for cardiovascular disease

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Tentative title: Data driven modeling of G protein signaling in plant cells

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Tentative title: Modeling cell polarization in budding yeast

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Tentative title: Modelling intermediate filament dynamics

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Tentative title: TBA

List of potential speakers
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