

Focused Seminar Series on Statistics and Optimisations in Biological Studies
13 June – 18 July 2016, Enterprise Wing @ UTown, S'138602

Seminar 4: Hidden Markov Models for Microscopy Image Analysis

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Singapore-MIT Alliance for Research and Technology

Date: 18 July 2016, Monday

Time: 12pm to 1pm

Venue: BioSyM Meeting Room, Enterprise Wing Level 4



Abstract

A Hidden Markov Model (HMM) is a statistical model that assigns probabilities to sequential data. You can use HMMs to create new sequential data and to classify a temporal patterns such as speech, biological and image sequences. In this talk, I will present approaches to detect phenotypic behaviours from time-lapse microscopy images of migrating cells by training statistical models such as HMMs.

Biography

Sharon is a research scientist at the Singapore-MIT Alliance for Research and Technology (SMART) Centre in the BioSystems and Micromechanics (BioSyM) interdisciplinary research group. She received her Ph.D. in Mechatronics Engineering from The University of Sydney, Australia. Her research interests include medical image analysis, Bayesian statistics and machine learning.