

# Mathematical & Computational Biology Seminar

Organizer: Lior Pachter

Wednesday, 2:00–3:00pm, 939 Evans

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Jan. 28     **Daniel Falush**, University College Cork

*History of human admixture inferred by sloppy painting*

Historical, archaeological and linguistic data demonstrate that many modern day human populations represent admixtures of genetically distinct groups. New fine-scale genome wide data sets offer the opportunity to understand admixture events that occurred much further in the past, or occurred between more closely related populations, than has previously been possible. However, there is a lack of applicable methods to extract such information. Here we discuss the development and application of a novel approach to help improve our understanding of how historical admixture has influenced human genomes. The approach aims to date events, as well as to identify the contributing populations. Application to data for 53 human populations suggests admixture has affected almost all human populations. For example, multiple admixture events within Central and East Asia date back to the time of the Mongol Empire, and even earlier events are detected in many populations.