



Department of Mathematics and Statistics

Colloquium

Thursday\* February 20

4:00 - 5:00 pm Adel 164

## Modelling Kindness

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### Abstract

At first glance, altruistic behavior presents an explanatory challenge for evolutionary biology. If evolution, driven by natural selection, is indeed a struggle for existence then why would one individual diminish its own fitness to increase that of a competitor? In short, why would any individual be kind to another? In this talk, I will outline a simple mathematical model that draws out the adaptive significance of altruism. The model itself is not dynamically sufficient and so I will describe extensions that marry population dynamics and the evolution of altruistic behaviours.

Refreshments at 3:45

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\*not Tuesday.