

# BI-CO MATHEMATICS COLLOQUIUM

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## *“Evolutionary Game Theory in Structured Populations”*

**Monday, February 8, 2010**

Talk at 4:15 – KINSC H109

Tea at 4:00 – KINSC Math Lounge, H208

**Abstract:** Evolutionary game theory studies the evolution of social traits based on the principle of reproduction based on success. It is becoming clear that the question of "which traits are favored by evolution?" depends critically on the structure of the evolving population: the manner in which individuals interact, reproduce, and die. Some structures promote pro-social, cooperative behaviors while others promote spiteful behaviors. I will introduce several models of evolution in structured populations and discuss recent progress toward an overarching mathematical theory.

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