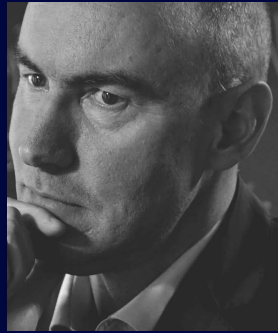


Department of Applied and Computational Mathematics and Statistics Colloquium



Martin Nowak

Harvard University

Evolution by Natural Cooperation

Cooperation is the third fundamental principle of evolution beside mutation and selection. Mutation generates diversity. Selection acts on diversity. Cooperation leads to new levels of biological organization. Cooperation is the architect of the complexity of all living systems. Cooperation is needed for an origin of life, for the emergence of proto-cells, of prokaryotes, eukaryotes, multi-cellularity and animal societies. In the human realm, cooperation has given rise to language and as a consequence to all innovations that are associated with humanity. In the present moment, both global cooperation and cooperation with future generations are critically needed to enhance the survival probability of intelligent life on Earth.

Thursday, April 3, 2025

3:45 – 4:45 PM

127 Hayes-Healy Center

Colloquium Tea – 3:15 PM in 101A Crowley Hall