



Mathematical Biology Seminar



Monday, October 22, 2018

3 pm – 457 CAB

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Models of social-ecological systems The example of eutrophication

Does an environment-friendly action necessarily leads to an environmentally desirable state?

The example of a social-ecological model for lake pollution dynamics allows us to discuss this intuition.

Simplifying a previous model by Suzuki and Iwasa (2009), we explain the organization of the phaseplane: the study of the nullclines explains how many equilibria there can be and which ones can be stable.

Analytical conditions for complexity are interpreted empirically, and our models also illustrate the consistency of major evolutionary game theoretical approaches of the modelling of human behaviour.