BiRC Seminar – open to all

Andreas Pavlogiannis, Assistant Professor

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Time: Friday 21 February 2020 from 14:15 – 15:00
Place: BiRC, C.F. Møller's Allé 8, 8000 Aarhus, (room to be decided, hopefully 1110-223).
Title: Amplifiers of Selection: A glimpse into evolutionary graph theory

Abstract

The rate of evolution depends on the fixation probability of new mutants. Population structure affects the dynamics of spread, and thus the fixation probability. The talk will give a high-level overview of evolutionary graph theory, a mathematical model for the study of evolution on population structures represented as graphs. We will focus on amplifiers of selection, which are graphs that amplify the selective advantage of new mutants and thus accelerate evolution. We will characterize their impact on the fixation probability and fixation time of beneficial mutations, and touch on some open challenges both on their mathematical study and their biological realization.

Andreas Pavlogiannis is an assistant professor at CS. His main research focuses on the algorithmics of program analyses, however he often transfers technical tools to other domains, such as in mathematical biology and evolutionary game theory.

http://birc.au.dk/activities/seminar-series/

After the seminar there will be beer/soda and chips in the lunch room!

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