

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research
Department of Mathematics*

WORKING SEMINAR

Professor Antoine Danchin

President, AMAbiotics SAS (a biotech company), France
Member of the French Academy of Sciences

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Rm 309, Run Run Shaw Building, HKU

The evolving chassis

Abstract

Most studies in Synthetic Biology focus on the design of novel piece of genetic programs. Yet, the programs have to be read by a machine. In the first part of the presentation we remind us that the master function of a cell (be it natural or synthetic) is to produce a young progeny and explore its environment. We also remind how the corresponding helper functions can be identified from extant genome sequences. However this view corresponds to cells in the course of multiplication, while most cells pass most of their lifetime in a quiescent state. The consequences of this ubiquitous situation has escaped attention, essentially because it has been usual to neglect the role of context in statistical analyses. We delineate some of the consequences of this view, not only for Synthetic Biology, but also, in general, for our view of evolution.

All are welcome