

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research
Department of Mathematics*

WORKING SEMINAR

Professor Antoine Danchin

Honorary Professor, Faculty of Medicine, HKU
President, AMAbiotics SAS (a biotech company), France

November 9, 2012, 4:00 - 5:00pm

Rm 210, Run Run Shaw Building, HKU

Compartmentalisation of information in biology

Abstract

After a brief overview of the case for information as an authentic currency of biological reality, we discuss the role of concrete Maxwell's demons in organising the cell's architecture. We further show that the metabolic world must be compartmentalised to escape unwanted reactions. Finally we open a conjecture about processes that may allow compartmentalisation of information while using a common chemical substrate as a source of energy. This conjecture is open to mathematical model building.

All are welcome