

colloquium

Stochastic Analysis of Animal Group Patterns under the Extra Clustering Model

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時 間：103 年 5 月 7 日(三) 2：30 pm

地 點：應用數學系多媒體教室（理 408 室）

摘 要：

Understanding animal group patterns of social animals is an important issue in biology. Many random models have been proposed for the pattern formation process with a recent class of models due to Durand, Blum and Francois based on genetic relatedness. In this talk, we present our recent results on limit laws of the number of groups under these models. The latter parameter satisfies stochastic recurrence relations very similar to those satisfied by shape parameters of divide-and-conquer algorithms in computer science.

However, tools from the latter area cannot be directly applied and we have to extend them. The results we obtain contain some surprises.

This is joint work with Michael Drmota (Technical University of Vienna) and my former master student Yi-Wen Lee.