

Short bibliography for the course

Stochastic models of evolution in a population living in a continuum

(A. Véber, Easter Probability Meeting, March 2023)

General references on stochastic models in population genetics :

Birkner, M. (2005). *Stochastic models from population biology*. Lecture notes from a summer course at TU Berlin, available at [this link](#).

Durrett, R. (2008). *Probability models for DNA sequence evolution*. Second edition, Springer.

Etheridge, A.M. (2011). *Some Mathematical Models from Population Genetics: École D'Été de Probabilités de Saint-Flour XXXIX-2009* (Vol. 2012). Springer.

Wakeley, J. (2009). *Coalescent Theory : An Introduction*. Roberts & Company Publishers. [written for biologists, full of interesting examples and applications]

On the spatial Lambda-Fleming-Viot process (main papers mentioned in the lectures):

Barton N.H., Etheridge A.M. and Véber A. (2010). A new model for evolution in a spatial continuum. *Electron. J. Probab.*, 15 : 162 – 216.

Berestycki N., Etheridge A.M. and Véber A. (2013). Large scale behaviour of the spatial Lambda-Fleming-Viot process. *Ann. Inst. H. Poincaré Probab. Statist.*, 49: 374 – 401.

Barton N.H., Etheridge A.M., Kelleher J. and Véber A. (2013). Inference in two dimensions: allele frequencies versus lengths of shared sequence blocks. *Theor. Popul. Biol.*, 87: 105 – 119.

Etheridge A.M., Véber A. and Yu F. (2020). Rescaling limits of the spatial Lambda-Fleming-Viot process with selection. *Electron. J. Probab.*, 25(120): 1 – 89.

Louvet A. and Véber A. (2022). Growth properties of the infinite-parent spatial Lambda-Fleming-Viot process. *arXiv preprint* 2205.03937.