Exotic aromatic B-series for the order conditions of the long time numerical integration of ergodic stochastic differential equations

Author and Presenter:
Adrien Laurent (University of Geneva, Switzerland)

Co-author:
Gilles Vilmart (University of Geneva, Switzerland)

Abstract: We introduce a new algebraic framework based on aromatic trees and Butcher-series for the systematic study of the accuracy of numerical integrators for sampling the invariant measure of a class of ergodic stochastic differential equations.

References

[1] A. Laurent and G. Vilmart. Exotic aromatic B-series for the study of long time integrators for a class of ergodic SDEs. *Submitted*, arXiv:1707.02877, 2017.