Pauline Lafitte - Towards a scheme of uniform order in time for the Fokker-Planck equation

Friday 24 May 2024 11:45 (45 minutes)

The sensitive issue of the discretisation of Neumann's boundary condition for a Fokker-Planck equation while preserving self-adjointness led us to the study of an inconsistent scheme for the evolutionary or stationary heat equation. Together with Guillaume Dujardin, we showed the *uniform convergence in time* at order 1/2 for this last scheme, under a classical stability condition, and pursue this study for the Fokker-Planck equation. This order of convergence is also the one obtained numerically.