Fully spatial modelling of turbulence and problems related to the energy dissipation and volatility modulation

Emil Hedevang, Department of Mathematics, Aarhus University

A fully spatial stochastic model of turbulence where the velocity vector field is given in term of ambit fields is presented, and the problem of determining the role of the volatility modulation and its relations to the energy dissipation is discussed. Furthermore, open problems (to our knowledge) on how to reproduce certain random geometric structures are presented.