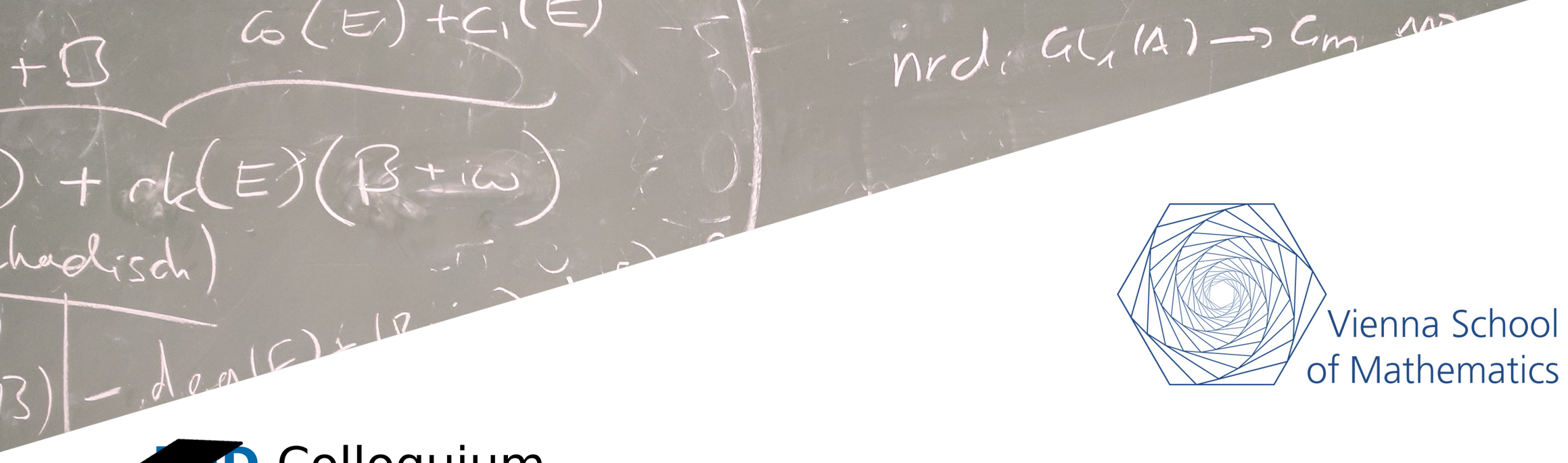

Vienna School of Mathematics

PhD Colloquium

Damiano De Gaspari

Superdiffusivity of the Stochastic Burgers Equation

Stochastic partial differential equations (SPDEs) generalize the modeling of aggregate macroscopic phenomena provided by PDEs by allowing the coefficients or the forcing terms to be random processes. In this talk we introduce the Stochastic Burgers equation in dimension d = 2, formally given by

$\partial\eta = 1/2\ \Delta\eta + w \cdot \nabla(\eta^2) + \nabla \cdot \xi\ ,$

where ξ is two dimensional space time white noise and w is a fixed non-zero vector. We briefly address well-posedness issues and we discuss the superdiffusive behaviour of the solution.

18 March 15:00 – 15:45

TUForMath room at TU Wien,
Wiedner Hauptstrasse 8-10, ground floor