Seminar/Talk

A gradient flow approach to the Boltzmann equation

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Host: Jan Maas

In this talk I will present a new point of view on the spatially homogeneous Boltzmann equation viewing it as the gradient flow of the entropy. This gradient flow structure relies on a new notion of distance between probability measures that takes the collision process between particles into account and takes over the role of the Wasserstein distance. As two applications of this point of view I will present a time-discrete variational approximation scheme for the homogeneous Boltzmann equation and a new and simple proof for the convergence of Kac's random walk to the Boltzmann equation.

Tuesday, April 11, 2017 04:00pm - 06:00pm
Seminar room Big Ground floor / Office Bldg West (I21.EG.101)

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