Conferencia

SANTALÓ 2016

Luigi Ambrosio

Scuola Normale Superiore di Pisa, Italia

Well posedness of ODE's and continuity equations with nonsmooth vector fields and applications

I will do a survey talk on the fascinating research topic of the ODE/PDE well-posedness for nonsmooth vector fields, initiated by a seminal paper by DiPerna-Lions at the end of the '80. Since then the theory developed in many directions, that I will partly cover in my talk: minimal regularity assumptions on the vector field, quantitative error and convergence estimates, regularity of the flow. I will also cover more recent results: an application of the theory to the Vlasov- Poisson equation and the abstract side of the theory, which provides a canonical and stable notion of flow in metric measure structures.

**JUEVES, 20 DE OCTUBRE DE 2016 , 13:00 HORAS
AULA S-118 "MIGUEL DE GUZMÁN"
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