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Cédric Villani is a Professor at the l'Université de Lyon and Director of the l'Institut Henri Poincaré. From 2000 to 2010 he was professor at École Normale Supérieure de Lyon, and occupied visiting professor positions in Atlanta, Berkeley and Princeton. He has been awarded the Jacques Herbrand Prize (French Academy of Sciences, 2007); Prize of the European Mathematical Society (2008); Fermat Prize (2009); Henri Poincaré Prize (2009) and the Fields Medal (2010). His main research interests

are in kinetic theory (Boltzmann and Vlasov equations and their variants), and optimal transport and its applications.

Synthetic theory of Ricci curvature, when Monge meets Riemann

Abstract

This is the story of the encounter between three fields of mathematics: non-Euclidean geometry and more precisely the study of Ricci curvature, minimal transport, and statistical physics; this encounter comes with mutual enrichment.