CÉDRIC VILLANI IN 5 KEY DATES	
1973	Born in Brive la Gaillarde (southwestern France)
1998	PhD in mathematics from the University of Paris-IX
2008	European Mathematical Society Prize
2009	Director of the Institut Henri Poincaré
2010	Fields Medal Recipient

that seem completely unrelated. However, he harbored no doubts about his calling: "I was no good at physics," he laughs. "Even though most of my work is inspired by physics, I can only understand it from a mathematician's point of view."

In 2000, he returned from Atlanta and became a professor at ENS Lyon. "I felt that I had to get out of Paris," he says, "and I did the right thing. ENS Lyon is based around a small but top-level versatile team." He soon took on new responsibilities, becoming chairman of the specialists' commission and forming a top-notch probability team with Alice Guionnet. Villani's new position enabled him to exchange ideas with mathematicians specialized in a wide range of fields. "In Lyon, I could talk about anything with anyone," he remembers. He would stay at ENS nine years, dividing his time between teaching, institutional activities, and, above all, research— a period during which he made great progress in his work.

ACCOLADES AND AWARDS

Villani's achievements did not go unnoticed: in 2009 he was named director of the prestigious Institut Henri Poincaré (IHP), focused on mathematics and theoretical physics, after winning the prize of the same name.[4] This was followed by the Fields Medal in 2010, in recognition of his recent research on Landau damping. With Clément Mouhot, he was able to corroborate the work of the Russian physicist Lev Davidovich Landau, who in 1946 showed, although with incomplete proof, that plasmas converge to equilibrium without increasing entropy, unlike gases. Since then, Villani has devoted himself to the supervision of the IHP, inviting researchers from across the world. He is busy thinking up future research projects, "there are still many issues I would like to solve," he muses. This problem-solver has always put his heart, passion, and intuition into his work. Much like a poet.

01. CNRS / UPMC.
02. Entropy is a physical quantity describing the state of disorder of a system. Boltzmann held that molecules proceed from an orderly state toward a less orderly state, meaning that entropy is constantly increasing.
03. Cédric Villani, *Topics in Optimal Transportation* (Providence: American Mathematical Society, 2003) and Cédric Villani, *Optimal Transport. Old and New* (Berlin: Springer, 2008).
04. Bestowed by the International Association of Mathematical Physics.

Villani sees mathematical research as being largely a matter of human interaction. He recounts how, based on an idea proposed by Otto, the two worked together to explore a link between optimal transport and gas diffusion. Continuing this momentum, in collaboration with John Lott, an American specialist in the Ricci curvature, a differential geometry notion, he created a link between optimal transport and curvature study. This is Villani's forte: finding connections between fields

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