



Press release – Monday 8 February 2021

**Laure Saint-Raymond joins the Institut des Hautes Etudes Scientifiques
as a permanent professor**

Laure Saint-Raymond will join the Institut des Hautes Études Scientifiques (IHES) as a permanent professor of mathematics in September 2021.

Born in 1975, Laure Saint-Raymond was admitted to École normale supérieure (ENS) in 1994. She obtained a DEA (a doctoral degree delivered in France until 2011), in numerical analysis at Pierre and Marie Curie University and another in plasma physics at Versailles-Saint-Quentin-en-Yvelines University, as well as a teaching diploma (agrégation) in mathematics. She then earned a PhD on the kinetic theory of gases at the ENS Department of Mathematics and its Applications, under the supervision of mathematician François Golse. She was recruited as a researcher by CNRS in 2000.

Laure Saint-Raymond was then appointed professor at Pierre and Marie Curie University. She was seconded to Ecole Normale Supérieure from 2007, where she headed the analysis team before taking over as deputy head of the mathematics department.

She was elected member of the French Academy of Sciences in 2013, then member of the Academia Europaea in 2014 and became a junior member of the Institut universitaire de France in 2015, after a sabbatical year in the United States, where she worked at both Harvard University and MIT. In 2016, she obtained a transfer to Ecole Normale Supérieure in Lyon as a university professor. In 2017, she was elected member of the European Academy of Sciences.

Laure Saint-Raymond's work focuses mainly on the asymptotic analysis of systems of partial differential equations, in particular those governing the dynamics of gases, plasmas or fluids. In particular, she has made fundamental contributions to Hilbert's sixth problem on the axiomatization of mechanics, one of the 23 problems proposed by David Hilbert at the 1900 International Congress of Mathematics, which has not yet been solved: with various collaborators, she has shown that there is a continuous transition between the models of non-equilibrium statistical physics and the equations of fluid mechanics, and more recently she has studied the validity of these statistical models based on Newtonian mechanics. She is working in parallel on models in fluid mechanics that describe ocean currents, including the effect of fluid rotation and stratification on wave propagation and boundary layer phenomena.

She has received numerous awards. In particular, she received the European Mathematical Society Prize in 2008, the Ruth Lyttle Satter Prize of the American Mathematical Society in 2009, the Irène Joliot-Curie "Young Female Scientist" Prize from the French Academy of Sciences and the French Ministry of Higher Education and Research in 2011, and the Fermat Prize from the Midi-Pyrénées region in 2015. In 2019, she was awarded the title of Chevalier of the French Legion of Honor and in 2020 she was awarded the Bôcher Prize by the American Mathematical Society.

Emmanuel Ullmo, Director of IHES, said: *"We are delighted to welcome Laure Saint-Raymond, a brilliant mathematician whose innovative work has already been rewarded with numerous international prizes. Her arrival further broadens the fields of research developed at IHES."*

Laure Saint-Raymond adds: *"I am seizing the opportunity I was offered to join IHES. This is indeed an institute that provides not only the ideal environment to carry out independent research, but also the means to develop collaborations and encourage a more collective work style. The institute has a long*

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tradition in theoretical physics, algebra and geometry, and has more recently opened to probabilities. My own small challenge will be to also establish analysis, which brings other angles of approach to many problems at the interface with physics.”

[Institut des Hautes Études Scientifiques \(IHES\)](#)

IHES is a private research center dedicated to mathematics, theoretical physics and all related disciplines. The Institute has a restricted number of permanent professors in mathematics and theoretical physics. Each year, it welcomes around 200 visitors from all over the world for research visits.

L'IHES, membre fondateur de



[About Université Paris-Saclay](#)

Université Paris-Saclay brings together ten constituent faculties and institutes, four Grandes Écoles, the Institut des Hautes Etudes Scientifiques, two associate institutions and shared laboratories with national research organisations.

With 48,000 students, 8,100 lecturers and 8,500 administrative and technical staff members, Université Paris-Saclay offers a comprehensive and varied range of undergraduate to doctorate level programmes and engineering degrees, renowned for their quality thanks to the reputation and commitment of the University's academic staff. Located in the south of Paris on vast sites that stretch across Paris, Orsay, Évry and Versailles, Université Paris-Saclay benefits from a strategic geographical and socio-economic position that is strengthened by its international visibility. A leading University, Université Paris-Saclay is recognised for its excellent Mathematics and Physics programmes but also for Biological and Medical Sciences, Agriculture, Engineering, and its extensive Humanities and Social Sciences courses. Close to Paris, Université Paris-Saclay is nested in a protected natural area, at the very heart of a dynamic economic hub.