



Press release – 15 March 2023

**Ryan Thorngren joins the Institut des Hautes Etudes Scientifiques
as a junior professor starting in April 2023**

Ryan Thorngren will join the Institut des Hautes Etudes Scientifiques (IHES) on April 3rd as a junior professor. This prestigious position is reserved to talented researchers at the early stages of their career and gives them the opportunity to spend five years at the Institute, where they can develop their research autonomously, all the while contributing to the Institute's scientific activity and to making it an attractive hub for visiting researchers.

Born in Los Angeles, Ryan Thorngren did his undergraduate studies in mathematics at Caltech. He soon developed an interest in physics, which led him to studying applications of topology to quantum field theory at the University of California, Berkeley, where he earned his PhD. Topological phases, at the intersection between mathematics and condensed matter physics, continue to be at the center of his research interests.

After defending his PhD in 2018, Thorngren worked as a postdoctoral researcher at the [Weizmann Institute of Science](#), then at the [Harvard Center for Mathematical Sciences and Applications \(CMSA\)](#), and more recently at the [Kavli Institute for Theoretical Physics](#), in Santa Barbara.

He will join IHES as a junior professor in April 2023. *"I look forward to integrating into the community of IHES and to creating a group with similar interests in topological phases and condensed matter physics. I would like to organize a regular seminar and hire doctoral and postdoctoral researchers"*.

Being at the Institute with a five-year position, without any teaching obligation, will also give him the necessary calm and dedicated focus to work on some important projects. He is currently writing a first book about symmetry-protected topological phases, for which there is not yet a unified reference in literature.

As a physicist with a background in mathematics, Ryan Thorngren also looks forward to joining IHES for the special role it played in the history of mathematics having been the home of some legendary figures such as Fields medalists Alexander Grothendieck and René Thom, who first developed cobordism theory, a theory that Ryan Thorngren applies to physics.

When asked about how he sees himself in ten years' time, Ryan Throngren replied that he hopes to continue his career in research and to lead a research group, passing his knowledge on to the younger generations of students and early stage researchers. His philosophy is to go *"where his research questions take him"*, driven by the desire to be *"where the most exciting things in my research field are happening"*.

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

A founding member of Université Paris-Saclay, IHES is a private research center in mathematics, theoretical physics and all related disciplines. A private foundation recognized in the public interest, the Institute has a restricted number of permanent professors, mathematicians and theoretical physicists. Each year, it welcomes about 200 visitors from all over the world for research visits. Freedom of research, independence and interdisciplinarity are the values of the IHES, which is also committed to promoting the diversity of talent in fundamental research.

[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.