

Press release

European Research Council (ERC) awards grants

European boost for three talented individuals

Zurich, 8 September 2017

Three researchers are to receive ERC Starting Grants from the European Research Council (ERC) for their projects at ETH Zurich. These prestigious grants are awarded to talented individuals from around Europe at the start of their careers. The projects are conducted in a variety of research fields.

Three scientists who submitted projects through ETH Zurich have succeeded in the prestigious competition for Starting Grants from the European Research Council (ERC). Each will receive about CHF 1.7 million to conduct their research projects at ETH Zurich, making a total of more than CHF 5.1 million available for the projects.

The three researchers work in the fields of particle physics, landscape and environmental planning, and neuroinformatics. Detlef Günther, Vice President Research and Corporate Relations at ETH Zurich, is particularly pleased with the diversity of the research projects: "These talented individuals succeeded in competing against the top people in their fields across Europe. The wide range of projects that have received the grant also testifies to the breadth and quality of these young scientists."

Grantees: more female, more international

It should be mentioned that two of the three winning ETH projects were submitted by women researchers. "I am very pleased with the success of these researchers; it shows that highly talented women are able to make it to the top of many fields where this has not always been the case. It also validates our efforts to encourage excellent female researchers to pursue academic careers." This fact is reflected in the overall outcome as well: more female researchers took part in the latest ERC Starting Grant call than ever before. "Even better, four in ten winners are women," adds Jean-Pierre Bourguignon, President of the ERC. "This is also a record since the founding of the ERC." This round was also the most international to date – with Starting Grant winners coming from 48 countries.

High success rate for ETH once again

Of the more than 3,000 applications submitted, 13 percent succeeded this time. Once again, success for ETH was gratifyingly high. Of 20 submissions, 12 – or 60 percent – made it to the second round. Five were given an “A” rating (“excellent”) and thus received grant funding. This is equivalent to a quarter of all ETH projects submitted.

Further information

[ERC Starting Grants](#) →

Contact

ETH Zurich
Media Relations
Tel: +41 44 632 41 41
medienstelle@hk.ethz.ch

The three projects at a glance

The Large Hadron Collider (LHC) at CERN works with record-breaking energy and is expected to deliver an enormous dataset from proton-proton collisions over the next six years. **Lesya Shchutska**, senior assistant in the ETH Institute for Particle Physics and Astrophysics, is hoping to find new particles – Majorana neutrinos – based on the unparalleled collision energy and the large number of events. These particles may provide clues to the composition of dark matter – for example, how the matter-antimatter asymmetry in the universe came about – and also answer questions on the origin of neutrino masses. To achieve this goal, Shchutska will develop a new research programme during the CMS experiment that exploits the intensity and energy of the LHC and could be expanded further to the planned High-Luminosity Large Hadron Collider.

Adrienne Grêt-Regamey, ETH professor of Planning Landscape and Urban Systems, is researching to find out more about how the interaction between humans and nature influences our landscape. To promote participation in the planning process, she uses 3D visualisation and hearing laboratories to study how people perceive landscapes. One focus is on urban landscapes where uniform business centres, family houses and shopping centres have displaced agricultural land, and on the culture and lifestyles of the local communities. Grêt-Regamey's objective is to find out whether these homogenised landscapes reduce people's local connections and, in turn, their motivation to effect change. By creating a link between design and land use models, she aims to develop a planning instrument that promotes conscious landscape development and new methods of decision making.

Rafael Polania is interested in the mechanisms that underlie the human decision-making process. He plans to use his ERC grant to develop a new neurophysiological theory on how brainwaves contribute to cognitive performance, such as attention, short-term memory and value-oriented decision-making. The researcher is using computer models and electrophysiological measurements, as well as a new

technique that enables brainwaves to be altered non-invasively. He will thus be able to develop new forms of neuroinformatics analysis that may reveal different neuronal interactions. The analysis could be used to normalise brain function in persons with neuropsychological problems, such as attention deficit disorder (ADHD). Polania is currently a postdoc student in the Faculty of Business, Economics and Informatics at the University of Zurich and will conduct his ERC project at ETH Zurich.

ERC Starting Grant

The European Research Council (ERC) awards these grants to promote independent scientists of any nationality, with two to seven years of experience after completion of their doctorate and who have highly promising scientific careers. The decisive criterion for awarding the grant is the submission of an outstanding research project undertaken at a public or private research organisation in an EU member state or associated country. Up to CHF 1.7 million in funding is awarded over five years.