Looking for a Master’s degree or Ph.D. at the forefront of optics? 

Light and Sound Waves Reveal Negative Pressure

Three new Göttingen researchers, Birgit Stiller, Agostini, and Anne L ’Huillier. According to the Royal Swedish Academy of Sciences, the highest scientiﬁc award in physics was this year awarded to Ferenc Krausz, Director of the Max Planck Institute for Quantum Optics (MPQ) in Garching.

Honoured by the ERC

At the same time, Flore Kunst has received a Starting Grant from the European Research Council (ERC) and quickly raised research funding totaling 4.5 million euros.

The Scientist Flore Kunst in the Fast Lane

Flore Kunst investigates non-Hermitian topology in different contexts ranging from structures on the cell surface to simple toy models admitting analytical descriptions to open quantum systems. The fully automated measurement of the biophysical properties of hundreds of cell samples is a great challenge that she and her team are working through. The international scientist is very happy to have received the ERC-grant, which provides the necessary ﬁnancial support for her research project. At the same time, she is thrilled to be able to set up her own independent research group. In doing so, she builds a working environment with high motivation and values the exchange of ideas that is possible with this kind of research environment.

Structures on the Cell Surface

The molecular organization of the glycocalyx, its response to genetic changes, and how these changes in turn regulate cellular processes are objects of research for Birgit Stiller. Together with her research group, she has been able to gain important insights into thermodynamic states.

Three grants totalling around €580,000 for his research projects. The scientist has already received two-thirds of this money in the form of awards and grants.

Artiﬁcial intelligence not only affords impressive performance, but also creates a signiﬁcant demand for energy. Víctor López-Pastor and Florian Marquardt, two scientists from MPL, have discovered a new method to measure it. In collaboration with the Leibniz Institute of Photonic Technology, they have developed a method to measure the energy consumption of artiﬁcial intelligence processors while it is online.

Physics-Based Self-Learning Machines

In order to train artiﬁcial intelligence, it is necessary to use large amounts of data and the computing power of so-called supercomputers. Víctor López-Pastor and Florian Marquardt, two scientists from MPL, have now discovered a new method to measure the energy consumption of artiﬁcial intelligence processors while it is online.

Postdoctoral Position

In Molecular Quantum Optics: Would you like to work in a novel field of research? We are looking for a Postdoctoral Position in Molecular Quantum Optics with particular emphasis on the interaction of quantum emitters, in particular organic molecules, with their nanoscopic environment.

Position: Postdoctoral Position in Molecular Quantum Optics

We are looking for an outstanding, highly motivated research team that aims to understand and control the interaction of quantum emitters with the environment. This will be done using a combination of theoretical and experimental approaches, building on recent advances in organic molecular quantum optics. The successful candidate should have a strong background in quantum optics and molecular physics, as well as experience in experimental work.

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We are looking for a Postdoctoral Position in Molecular Quantum Optics with particular emphasis on the interaction of quantum emitters, in particular organic molecules, with their nanoscopic environment.

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