# Physics Colloquium

Tuesday, June 4, 2024 at 16:30

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Bilayer Quantum Hall Effect at Total Filling = 1

The integer quantum Hall effect, a phenomenon of electrons in two dimensions in a magnetic field, is often thought of as the paradigmatic example, the "hydrogen atom", of topological matter. Perhaps the simplest generalization of integer quantum Hall effect is the bilayer integer quantum Hall effect --- where there are two parallel closely spaced two-dimensional electron layers. While seemingly a simple generalization of the paradigmatic case, after thirty years of both theoretical and experimental work, we are only now coming to an understanding of some of the physics that results as a function of the distance between the two layers. This talk will introduce the field, explain why it has been interesting for so long, and explain what we have learned and what remains to be understood.
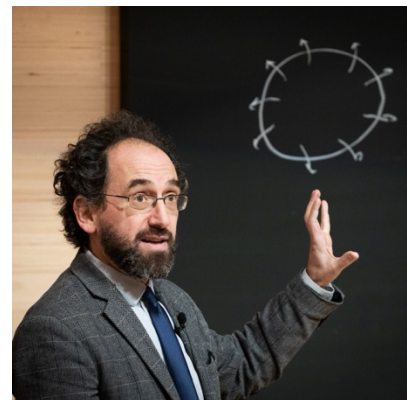
Venue: **small lecture hall.** Universität Leipzig, Faculty of Physics and Earth Sciences 04103 Leipzig, Linnéstraße 5.

Everyone is welcome to a reception with coffee, drinks and cookies in the Aula following the talk.

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