

## Professor Paul Wiegmann (University of Chicago) will deliver a series of lectures titled

### Geometric aspects of quantum Hall effect and quantum hydrodynamics

Recent new developments in the theory of quantum Hall effect point to deep relations to the problem of quantization of hydrodynamics. Both problems have common geometric properties and could be studied on a unifying platform. In the series of talks I will review recent advances in some of these fields emphasizing the common geometric aspects.

Among the subjects are

- = geometric transport (adiabatic transport in moduli space);
- = odd viscosity and anomalous stress;
- = analytical and gravitational anomaly and related physical effects.

Talks will be accessible to graduate students specialized in theoretical physics



Paul B. Wiegmann (Павел Борисович Вигман) is a Russian physicist. He is the Robert W. Reneker Distinguished Service Professor in the Department of Physics at the University of Chicago.

He specializes in theoretical condensed matter physics. He made pioneering contributions to the field of quantum integrable systems. He found exact solutions of  $O(3)$  Non-linear Sigma Model, (Wiegmann 1985), Wess–Zumino–Witten model (together with Alexander Polyakov), Anderson impurity model and Kondo model.

Awards and Distinguished Appointments: Lady Davis Fellowship (2000), Humboldt Research Award, Alexander von Humboldt Foundation (2002), Fellow of American Physical Society (2003), Kramers Chair, Spinoza Institute (2003), Blaise Pascal Chair, Ile de France (2006), Lars Onsager Prize (2017)

*// From Wikipedia*

#### Where and when:

- 1st lecture – October 8 at 14:30** / Skoltech, 1 Nobel str. (Red Building, room 335)
- 2nd lecture – October 10 at 17:30** / HSE, Faculty of mathematics, 6 Usacheva str.
- 3rd lecture – October 15 at 14:30** / Skoltech, 1 Nobel str. (Red Building, room 335)
- 4th lecture – October 17 at 17:30** / HSE, Faculty of mathematics, 6 Usacheva str.

<https://crei.skoltech.ru/cas/calendar/lect181001/>