



Contribution ID: 154

Type: **Talk**

Anomalous fractional quantum Hall effect and multi-valued Hamiltonians

Tuesday 31 August 2021 12:00 (30 minutes)

We discuss anomalous fractional quantum Hall effect that exists without external magnetic field. We propose that excitations in such systems may be described effectively by non-interacting particles with the Hamiltonians defined on the Brillouin zone with a branch cut. Hall conductivity of such a system is expressed through the one-particle Green function. We demonstrate that for the Hamiltonians of the proposed type this expression takes fractional values times Klitzing constant. Possible relation of the proposed construction with degeneracy of ground state is discussed as well.

Is this abstract from experiment?

No

Name of experiment and experimental site

N/A

Is the speaker for that presentation defined?

No

Details

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Internet talk

Yes

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Session Classification: Workshop on Lattice and Condensed Matter Physics