



Contribution ID: 238

Type: **Talk**

## Precise Wigner-Weyl calculus for lattice models

*Tuesday 8 September 2020 17:45 (25 minutes)*

A new version of exact Wigner-Weyl calculus for tight-binding lattice models is proposed and discussed in detail. It allows to express various physical quantities through Weyl symbols of Green's functions. Hall conductivity this way is represented using the proposed formalism as a topological invariant including the non-homogenous systems.

### Is this abstract from experiment?

No

### Internet talk

Yes

### Name of experiment and experimental site

n/a

### Is the speaker for that presentation defined?

Yes

### Details

Ignat Fialkovskiy

**Primary authors:** FIALKOVSKIY, Ignat (Ariel University, Israel, UFABC, Brazil); ZUBKOV, Mikhail (Ariel University, Israel and ITEP, Russia)

**Presenter:** FIALKOVSKIY, Ignat (Ariel University, Israel, UFABC, Brazil)

**Session Classification:** Workshop on Lattice and Condensed Matter Physics