



Contribution ID: 16

Type: Poster

## **【551】 Fabry-Pérot interference in InAs/GaSb quantum wells**

*Wednesday 28 August 2019 19:02 (1 minute)*

The observation of interference phenomena in two-dimensional mesoscopic systems is difficult, and so far constrained to graphene, where certain mechanisms originating in the graphene band structure strengthen the emergence of this phenomenon. Here, we report on the experimental observation of Fabry-Pérot oscillations in electrostatically defined cavities in InAs/GaSb quantum wells. Carriers travelling through the cavity are reflected at the interfaces, leading to interference. The emergence of the interference is a consequence of the band inversion and electron-hole hybridization. Our work expands the field of electron optics to a rich class of two-dimensional systems with tunable band structure.

**Primary author:** Mr KARALIC, Matija

**Co-author:** MASSERONI, Michele (ETHZ)

**Presenter:** MASSERONI, Michele (ETHZ)

**Session Classification:** Poster Session

**Track Classification:** Quantum Science and Technology