

**Celebrating Physics with a Good Excuse", Symposium at PSI
July 3 – 6, 2017, Paul Scherrer Institut**

Polaritonic excitations in the quantum Hall regime

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The elementary optical excitations from a two dimensional electron system (2DES) are exciton-polarons, or polaron-polaritons if the 2DES is embedded inside a microcavity. After a brief description of experiments carried out in transition-metal dichalcogenide (TMD) monolayers, I will describe the relevance of this new picture for describing elementary optical excitations from fractional quantum Hall states (FQHE) and discuss their potential for enhancing polariton-polariton interactions.