

Department of Mathematics

University of Houston

# Analysis Seminar

**FRIDAY, February 02, 2018**

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**13:00-14:00** – Room 646 PGH

**Speaker:** Eric Bittner (UH Chemistry Department)

**Title:** Quantum Spectroscopy with Entangled Photons

**Abstract:** We generally recognize that photons are quantum objects, but in practice we rarely acknowledge this in developing theoretical treatments of light-induced processes. In my talk, I shall discuss how we are trying to “put the quantum back into the photon” and understand how one can use entangled photon pairs to probe many-body correlation effects in condensed phase systems such as Bose condensates. I shall touch briefly on how such concepts can possibly be used for novel quantum computing and communication elements.