**Department of Physics**
Condensed Matter Physics
Clarendon Laboratory, Parks Road, Oxford OX1 3PU

UNIVERSITY OF OXFORD

# CONDENSED MATTER SEMINAR

**Thursday 16th of November at 2.15pm**

## *"Engineered optical microcavities for quantum science and technologies"*

**Prof Jason Smith**
**Department of Materials, University of Oxford**

The power of optical microcavities for controlling the interaction between light and matter has been known for several decades, but difficulties in the reproducible engineering of high quality microcavities has limited their impact both as laboratory tools and in real-world applications. It this talk I will present our recent work on open microcavities, essentially miniature plano-concave Fabry Pérot resonators, that are fabricated using focused ion beam milling and mature optical coating technologies. These microcavities provide a flexible tool for new laboratory experiments and are sufficiently robust and reproducible to begin to explore commercial application in chemical sensing and single photon source technologies.

**Host: Prof Achillefs Kapanidis**

**Audrey Wood Seminar Room, Clarendon Laboratory**