## 24th Australian Institute of Physics Congress



Contribution ID: 507 Type: Talk (preferred)

## How to Engineer Optomechanical Coupling Using NV Defects

Tuesday 13 December 2022 17:00 (15 minutes)

Coupling optical and mechanical modes of microresonators is usually engineered by harnessing their intrinsic nonlinear material response. We propose to harness a new coupling mechanism, in which relies an ensemble of nitrogen vacancies (NVs) induces the effective nonlinearity in diamon.

Author: SCHMIDT, Mikolaj (Macquarie University)

**Co-authors:** Prof. POULTON, Christopher (University of Technology Sydney); Prof. BURGARTH, Daniel (Macquarie University); Prof. BRENNEN, Gavin (Macquarie University); Prof. STEEL, Michael (Macquarie University)

Presenter: SCHMIDT, Mikolaj (Macquarie University)

Session Classification: Australian and New Zealand Conference on Optics and Photonics

Track Classification: ANZCOP: ANZCOP: Optoacoustics