

# Photonic chip frequency combs - new technologies to measure almost anything

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**Abstract:** This presentation will review the emerging science, technology, and applications of photonic chip frequency combs. This new form of laser light has the potential to bring unprecedented precision to almost any application that relies on measurement – from analysing living organisms to monitoring civil infrastructure and our changing environment and much, much more.

**Biography (100 words max):** Arnan Mitchell is a Distinguished Professor in the School of Engineering at RMIT University, Director of the RMIT Micro Nano Research Facility (MNRF) and leads the Integrated Photonics and Applications Centre (InPAC). He is a highly multidisciplinary researcher working in micro-chip technologies combining light, sound, fluids and electronics with applications spanning radar systems for defence, high speed fibre optic communications and point of care diagnostic systems for biomedicine. He is enthusiastic about translating technology into the hands of end-users and has dedicated much of his career to building and training diverse teams and comprehensive micro and nanotechnology infrastructure to enable breakthrough discoveries to achieve real world impact.

