

School of Physical Sciences Seminar

Speaker: **Prof. Síle Nic Chormaic (Okinawa Institute of Science and Technology)**

Title: **Manipulating and trapping particles using evanescent light fields**

Date: **Feb 24th 2022**

Location: SA217 & via Zoom

If you cannot join in-person, please use the Zoom link:

<https://dcu-ie.zoom.us/j/99145308425?pwd=WjdLUE5xSDBLS3p5Q216UFd3WHkyUT09>

Meeting ID: 991 4530 8425

Passcode: 923541

Abstract: In this talk, I will introduce ultrathin optical fibres – glass wires with a diameter typically less than the wavelength of light that can have very intense light fields, making them very useful for various studies of light-matter interactions. For example, these nanofibres can be used for microparticle manipulation, as optical couplers to whispering gallery resonators, and for atom trapping and control. I will discuss some of the work from our laboratory on Okinawa (Japan) that covers topics as diverse as manipulation of Janus particles using evanescent fields, exploring optical modes in optical nanofibres, and going beyond the simple nanofibre design for applications in cavity quantum electrodynamics.