



## UCD School of Mathematics and Statistics Colloquium Seminar

**Title:** Existence and uniqueness of isometric preduals

**Speaker:** Professor GILLES GODEFROY (IMJ Paris)

**Date:** Mon 29th April 2024 at 2:00PM

**Location:** E0.32 (beside Pi restaurant)

**Abstract:** Every Banach space  $X$  has a dual space  $X^*$  consisting of all the continuous linear forms on  $X$ . Easy examples show that the duality arrow  $X \mapsto X^*$  is not one-to-one. Also, some Banach spaces are isometric to dual spaces but not all of them, and it can be difficult to decide when a space has an isometric predual. We will display some elementary tools which lead to natural results along these lines. We will also exhibit links between duality issues and the structure of Banach lattices and Banach algebras.