



Discrete Mathematics Seminar

Title: Quantum Codes from Classical Techniques

Speaker: Oisín Campion (UCD)

Date: Wed 23rd September 2026 at 3:00PM

Location: N0.20 - Science North

Abstract: There is a direct correspondence between quantum stabilizer codes and certain classes of linear codes over finite fields. In this talk, we will give an overview of the primary algebraic techniques that are used to construct quantum codes, most notably the CSS and Hermitian constructions. Other important topics in quantum coding theory, including bounds, propagation rules, and entanglement-assisted codes are discussed, along with a presentation of several open problems in the field. No familiarity with quantum information is necessary.