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K-Theory, Quadratic Forms and Number Theory Seminar

Professor Gary McGuire (UCD, Claude Shannon Institute)

will speak on

**Fourier Transforms on Finite Fields and an Application of
Stickelberger's Theorem**

Wed 25th April 2007 at 5:00PM

Location: Mathematical Sciences Seminar Room

We will introduce the topic of Fourier transforms on finite fields. We explain an approach to determining the Fourier spectrum using Gauss sums and p -adic valued characters on the multiplicative group of a finite field, and Stickelberger's theorem. We apply the techniques to certain functions on fields of characteristic 2. We shall conclude with some open problems, in both odd and even characteristic.

This talk is part of the **K-Theory, Quadratic Forms and Number Theory** series. For more, see <https://maths.ucd.ie/seminars>