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## K-Theory, Quadratic Forms and Number Theory Seminar

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**Dr. Pat McCarthy (NUI Maynooth)**

will speak on

**Diophantine approximation of pi**

Wed 13th April 2011 at 3:00PM

Location: Mathematical Sciences Seminar Room

Diophantine Approximation (in one dimension) is concerned with how well we can approximate a real number  $\alpha$  with a rational number. Specifically, suppose that  $\phi(x) > 0$  and  $\phi(x)/x$  tends to 0 as  $x$  decreases to 0. Can we find infinitely many fractions  $p/q$  such that

$$|\alpha - p/q| \leq \phi(1/q)?$$

We present some results which hold for arbitrary irrational  $\alpha$  and arbitrary algebraic  $\alpha$ . Finally we discuss the current state of knowledge regarding the case where  $\alpha = \pi$ .

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