



**UCD School of
Mathematics and Statistics**

University College Dublin
Belfield, Dublin 4, Ireland

Tel +353 1 716 2580
Fax +353 1 716 1196

**Scoil na
Matamaitice agus na Staitisticí UCD**

An Coláiste Ollscoile, Baile Átha Cliath
Belfield, Baile Átha Cliath 4, Éire

Email seminars@maths.ucd.ie
Web maths.ucd.ie/seminars

Algebra and Number Theory Seminar

Gottlieb Pirsic (Radon Institute, Austria)

will speak on

Digital Nets, Point Sets and Sequences

Mon 18th February 2008 at 4:00PM

Location: Mathematical Sciences Seminar Room

Digital point sets, i.e., point sets in some way derived from digit expansions, are one of the main tools used in quasi-Monte Carlo methods, e.g., for multivariate integration and optimization. However, apart from the aspect of applicability, they are also of interest as an object of basic sciences. The talk will give an introduction in the subject, first focussing on the number theoretical motivation and background, then introducing some of the most widely used and investigated examples and finally mention some of the techniques used in the investigation of digital nets. Connections to combinatorics, coding theory, algebraic function fields (and, perhaps, Sudoku puzzles) will be briefly pointed out.

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