Title: The Tutte polynomial for lattice path matroids

Abstract: Matroids are combinatorial objects that were introduced by Whitney in 1935 in order to describe axiomatically the notion of independent set from linear algebra and graph theory.
The Tutte polynomial associated to a matroid captures some of its combinatorics. In general, this is difficult to compute, and C. Colbourn, J. Provan and D. Vertigan proved that for the class of transversal matroids that is a #P-complete problem.

J. Bonin, A. de Mier and M. Noy introduced the lattice path matroids in *Lattice path matroids: enumerative aspects and Tutte polynomial* (2002) as a subclass of the transversal matroids and they proved that for this subclass, the computation of the Tutte polynomial can be done in polynomial time.

In this talk, I will introduce the class of lattice path matroids and I will explain the algorithm computing their Tutte polynomial.