Seminar/Talk

Knot invariants from Yokonuma-Hecke algebras

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In the 1960 s, Yokonuma introduced certain algebras as generalisations of the Iwahori-Hecke algebras in the context of finite reductive groups; these algebras are now called Yokonuma-Hecke algebras. In the 1980 s, Jones used the Markov trace on the Iwahori-Hecke algebra of type A in order to define knot invariants. His method gave rise to famous polynomial knot invariants such as the Jones polynomial and the Homflypt polynomial (else known as 2-variable Jones polynomial). In the past years, Juyumaya and Lambropoulou similarly used the Markov trace on the Yokonuma-Hecke algebra of type A in order to define invariants for framed and classical knots. In a joint work with Juyumaya, Karvounis and Lambropoulou, we showed that the latter are not equivalent to the Homflypt polynomial. In this talk, I will discuss the above results, as well as some interesting properties of the newly constructed invariants.

Wednesday, April 5, 2017 01:45pm - 03:45pm
Mondi Seminar Room 2, Central Building

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