

- Stefan Kolb (Newcastle) – Representations of very non-standard quantum $so(2N-1)$

Abstract: Letzter's theory of quantum symmetric pairs provides new quantum deformations of the Lie algebra $so(n-1)$ considered as a Lie subalgebra of $so(n)$. These deformations are realized as coideal subalgebras B of the Drinfeld-Jimbo quantum enveloping algebra $U=Uq(so(n))$. For even $n=2N$ the algebra B has an obvious Cartan subalgebra which makes it possible to mimic quantum group constructions.

In this talk I will discuss this example as an illustration of Letzter's theory. I will outline a Poincare-Birkhoff-Witt Theorem and the classification of finite-dimensional irreducible representations of B in this case. The talk is based on work by my student Jake Stephens.