

**Friday, October 17th** (at 4.00pm, UK time)

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*Title: Quantum Ruijsenaars-Schneider systems from quantum toroidal algebras.*

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**ABSTRACT**

Ruijsenaars-Schneider (RS) systems are prototypical integrable systems arising in various areas of mathematical physics, such as Seiberg-Witten theory, theory of symmetric functions and representation theory of affine Lie algebras.

We use an embedding of these systems into representation theory of quantum toroidal algebras to obtain a new R-matrix formalism that unifies known RS systems and produces interesting generalizations thereof.

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