Friday, September 25th (at 3.00pm, UK time)

Laszlo Feher (Budapest and Szeged)

Title: *On the bi-Hamiltonian structure of spin Ruijsenaars-Schneider-Sutherland models*

ABSTRACT

We first present a bi-Hamiltonian structure for the finite dimensional dynamical system derived by Braden and Hone in 1996 from the solitons of affine Toda field theory. This system of evolution equations has been related to the spin Ruijsenaars-Schneider models due to Krichever and Zabrodin, and it also coincides with the hyperbolic spin Sutherland model that arises by reduction of free geodesic motion on the symmetric space of positive definite Hermitian matrices.

We then consider the trigonometric analogue of this system, and explain how its bi-Hamiltonian structure descends from a bi-Hamiltonian structure on the cotangent bundle of the unitary group U(n).

The talk is based on two papers that appeared last year: arXiv:1901.03558 and arXiv:1908.02467.