

Friday, November 21st (at 4.00pm, UK time)

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Title: Harmonic locus and Calogero-Moser spaces.

ABSTRACT

The harmonic locus consists of the monodromy-free Schroedinger operators with rational potential quadratically growing at infinity. It is known after Oblomkov that it can be identified with the set of all partitions via Wronskian map for Hermite polynomials.

We show that the harmonic locus can also be identified with the subset of the Calogero-Moser spaces, introduced by Wilson, which is invariant under a natural symplectic action of C^* . As a corollary, for the multiplicity-free part of the locus we effectively solve the inverse problem for the Wronskian map by describing partition in terms of the spectrum of the corresponding Moser's matrix. We also compute the characters of the C^* -action at the fixed points, proving a conjecture of Conti and Masoero.

The talk is based on a joint work with Giovanni Felder.
