Sessão: Física Matemática

Solutions of the Bethe Ansatz Equations as Spectral Determinants

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In 1998, Dorey and Tateo discovered that the Bethe roots for the ground state of the Quantum KdV model coincide with the eigenvalues of certain anharmonic oscillators (ODE/IM correspondence). In 2004, Bazhanov, Lukyanov & Zamolodhchikov conjectured that the Bethe roots of every state of the model are the eigenvalues of a linear differential operator, namely an anharmonic oscillator with a monster potential. In this talk I provide an outline of the proof – conditional on the existence of a certain Puiseux series – of the BLZ conjecture, that I have recently obtained in collaboration with Riccardo Conti.