

1024-14-259

**Alexander Varchenko\*** ([anv@email.unc.edu](mailto:anv@email.unc.edu)). *The B. and M. Shapiro conjecture in real algebraic geometry and Bethe ansatz.*

I shall discuss the proof of Shapiro's conjecture by methods of math physics and representation theory. The Shapiro's conjecture says the following. If the Wronskian of a set of polynomials has real roots only, then the complex span of this set of polynomials has a basis consisting of polynomials with real coefficients. (Received January 10, 2007)