



MAFIA - the seminar you can't refuse

## **Algebraic Bethe Ansatz for low-dimensional orthogonal and symplectic groups**

**David Karakhanyan**

Yerevan Physics Institute

1 October 2019

13:15–14:15

in T112

Fakulta jaderná a fyzikálně inženýrská, ČVUT v Praze  
Trojanova 13, 12000 Praha

**Abstract:** We propose a new approach for calculation of spinor-spinor  $R$ -matrix for orthogonal and symplectic symmetry groups and consider few simplest examples. Based on this approach and the fusion method we relate the spinor-vector and vector-vector Monodromy matrices for the chains with the orthogonal and symplectic symmetries. We consider the Algebraic Bethe Ansatz method for few simplest cases taking in mind to develop the Nested Bethe Ansatz for orthogonal groups reducing the eigenproblem for vector-vector transfer matrix for higher orthogonal groups to lower ones.