

数学与系统科学研究院

计算数学所学术报告

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报告题目:

The Heun linear pencil as a universal tool for exactly and quasi-exactly solvable problems

邀请人: 常向科 助理研究员

报告时间: 2018年4月20日(周五)

下午 15:00--16:00

报告地点: 数学院南楼N210 教室

报告摘要:

The Heun linear pencil is the most general bilinear operator which can be constructed from a pair of bispectral operators. In the case if one of these operators is the hypergeometric operator the Heun pencil coincides with the ordinary Heun operator. For other choices of

the pair of bispectral operators we obtain generalizations of the Heun operator, including q-Heun operators. The Heun pencil is related with the method of tridiagonalization. In special cases the Heun pencil allows to obtain the Racah-Wilson operator (and corresponding orthogonal polynomials) from the Gauss hypergeometric operator. Applications of the Heun pencil to problems in mathematical physics are considered.

欢迎大家参加！