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A Talk at the 2nd ISNMP Conference

Bad Ems, 28 June to 4 July 2026

Regular Session:

Speaker: Pramod Padmanabhan (Department of Physics, School of Basic Sciences, Odisha, India)

Title: *An algebraic understanding of Hietarinta's 4×4 constant Yang-Baxter solutions*

Abstract: In this talk, I will review one of Jarmo Hietarinta's achievements in the early 90's - classifying the constant Yang-Baxter solutions in the two dimensional case. I will then elaborate on our current understanding of his solutions, which include an algebraic derivation of his solutions [along the lines of the Jones braid group representations] and the Baxterization of his solutions leading to non-hermitian and hermitian integrable systems. The talk will be based on: <https://arxiv.org/abs/2409.05375>, <https://arxiv.org/abs/2503.08109>, <https://arxiv.org/abs/2508.04315>.