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Regular Session:

Speaker: H. Aratyn (University of Illinois at Chicago, USA)

Collaborators: Y. F. Adans, J. F. Gomes, G. V. Lobo

Title: *Volterra lattices and solutions of symmetric Painlevé IV equations*

Abstract: We present an explicit construction of rational solutions to the symmetric Painlevé IV equations based on one-to-one identification of the orbits of square-roots of the translation operators of the $A_2^{(1)}$ affine Weyl algebra with the Volterra lattices with special boundary conditions.