SRS
SwissMAP Research
Station in Les Diablerets

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From Liouville to Painlevé and Heun via CFT/isomonodromy relation

Wednesday 24 January 2024 09:00 (1 hour)

I will review connections between the problem of construction of linear ordinary differential equations with prescribed monodromy and the 2D conformal field theory. This correspondence leads to a number of conjectures in the theory of Painlevé and Heun equations some of which have already been proven rigorously and some remain open. The two main applications I will focus on are the construction of the general solution of Painlevé VI equation and the computation of accessory parameter and connection formulas for Heun's equation in terms of Liouville conformal blocks.

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