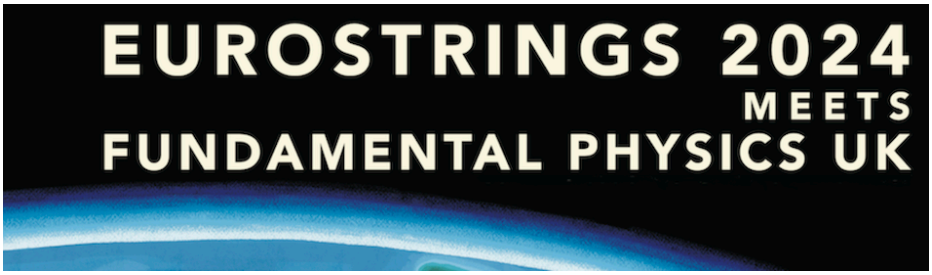

Contribution ID: **143** Type: **Talk in parallel session**

Spin Matrix Theories as Conformal Field Theories

Thursday 5 September 2024 14:30 (20 minutes)

Spin Matrix Theories (SMTs) describe the near-BPS limit of $\mathcal{N} = 4$ super Yang-Mills theory, which enables us to probe finite-N effects like D-branes and black hole physics. In the last years, we developed a systematic method to construct SMTs for various limits, including the largest possible case with PSU(1,2|3) invariance. This sector is particularly important because it admits dual black hole solutions, and degenerates to all the other possible SMTs when certain letters of the theory are turned off. In this talk, we make progress to formulate the SMT with PSU(1,2|3) invariance in terms of a three-dimensional non-relativistic quantum field theory. We interpret the result as a non-relativistic conformal field theory, and discuss a corresponding version of the state-operator correspondence.

Link to publication (if applicable)

https://arxiv.org/abs/2211.16519

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Session Classification: Parallel sessions

Track Classification: Non-relativistic field theories