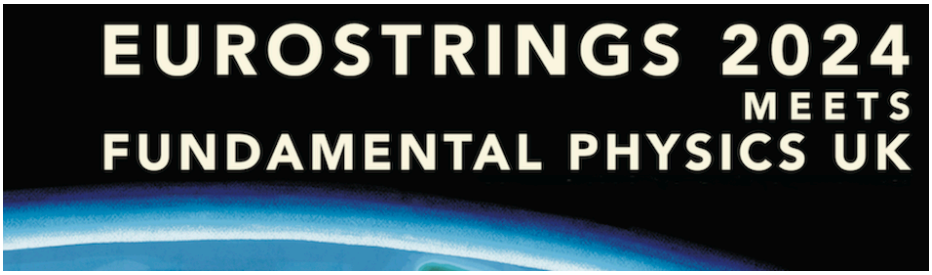

Contribution ID: **179** Type: **Talk in parallel session**

On the structure of wave functions in complex Chern-Simons theory [cancelled]

Monday 2 September 2024 15:10 (20 minutes)

In this talk, I will present recent work on the structure of wave functions in complex Chern-Simons theory on the complement of a hyperbolic knot in the three-sphere. The holomorphic blocks in the decomposition of the full non-perturbative wave function conjecturally possess a hidden integrality structure that guarantees the cancellation of potential singularities at rational points. The exact wave function in the rational case is expressed in closed form in terms of the new integer invariants. Alternatively, it is computed by solving recursively the q-difference equation encoded in the quantum A-polynomial of the knot. Finally, I will illustrate our conjectural statements in the benchmark example of the figure-eight knot. This talk is based on arXiv:2312.00624 (joint work with M. Mariño).

Link to publication (if applicable)

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