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Thursday, 27 October 2022 10:00 (30 minutes)

[Session Chair: John H. Schwarz (Caltech)]

“D=5 Holomorphic Chern-Simons and the Pure Spinor Superstring”

Superstring amplitudes can be computed using either the N=1 worldsheet supersymmetric prescription of the RNS formalism or the twisted N=2 worldsheet supersymmetric prescription of the pure spinor formalism. Although all amplitudes computed using the two prescriptions coincide, there is still no equivalence proof and multiloop computations contain different subtleties in the two prescriptions. D=5 holomorphic Chern-Simons amplitudes can also be computed using either N=1 or twisted N=2 worldsheet supersymmetric prescriptions, and provide insights for an equivalence proof of the RNS and pure spinor prescriptions.