Abstract Submitted
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A special relationship between non-unitary non-Abelian and unitary Abelian quantum Hall states MILICA MILOVANOVIC, Institute of physics, Belgrade, THIERRY JOLICOEUR, Universite Paris-Sud, IVANA VIDANOVIC, Institute of physics, Belgrade — We point out a special relationship between quantum Hall states connected with non-unitary conformal field theories (CFTs) and those connected with unitary bosonic CFTs. They are related via boundary insertions as encoded in their root configurations. We discuss the cases of Gaffnian and Haldane-Rezayi non-unitary theories (i.e. quantum Hall states) which, via boundary insertions, can be transmuted into abelian bosonic unitary theories. The construction mimics a global change of parameters in the phase space of the electron system. We also discuss the cases of permanent non-unitary theory and Pfaffian unitary theory which are resistant to this mechanism described in M.V. Milovanovic, Th. Jolicoeur, and I. Vidanovic, Phys. Rev. B 80, 155324 (2009).

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