Wave functions for hierarchical quantum Hall states JUHA
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VIEFERS, University of Oslo — We propose a framework for obtaining microscopic
representative wave functions which reflect Wen and Zee's classification of Abelian
quantum Hall states. Explicit wave functions are related to coherent state transforms
of combinations of chiral and antichiral blocks in simple conformal field theories. The
approach reproduces all positive and negative Jain states as special cases, and also
encompasses hierarchical states which involve condensates of both quasiholes and
quasielectrons. We show that the proposed wave functions reduce to the known
ground states in the thin cylinder limit.

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