Second quantized approach to zero mode properties of projected Trugman-Kivelson interaction LI CHEN, Washington University in Saint Louis National High Magnetic Field Laboratory, SUMANTA BANDYOPADHYAY, ALEXANDER SEIDEL, Washington University in Saint Louis — We have analyzed general zero mode properties of the parent Hamiltonian of the unprojected Jain 2/5 state. Earlier numerical claims in the literature about ground state uniqueness on the sphere are substantiated on analytic grounds. Preference is given to second quantized methods, where zero mode properties are derived not from given analytic wave functions, but from a lattice Hamiltonian and associated zero mode conditions.

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