

**Bethe ansatz and generalized exclusion statistics of
one-dimensional strongly interacting anyons**

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We investigate Bethe Ansatz solvability, ground state, thermodynamics and the generalized exclusion statistics (GES) of the 1D δ -function interacting anyon gas. It is found that the anyonic statistical parameter and the dynamical coupling constant induce Haldane exclusion statistics interpolating between bosons and fermions. In the strongly interacting regime the thermodynamics and the local two-particle correlation function derived from the GES are seen to agree for low temperatures with the results derived for the anyon model using the thermodynamic Bethe Ansatz. The anyonic and dynamical interactions implement a continuous range of GES, providing a signature of strongly interacting anyons, including the strongly interacting one-dimensional Bose gas as a special case.