

DEMONSTRATION OF THE SPIN-STATISTICS CONNECTION IN ELEMENTARY QUANTUM MECHANICS

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Abstract

A simple demonstration of the spin-statistics connection is presented. The effect of exchange and space inversion operators on two-particle states is reviewed. The connection follows directly from successive application of these operations to the two-particle wave function for identical particles in an s -state, evaluated at spatial coordinates $\pm\mathbf{x}$, but at equal time, *i.e.*, at spacelike interval.