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**Gerald A. Goldin\*** ([geraldgoldin@dimacs.rutgers.edu](mailto:geraldgoldin@dimacs.rutgers.edu)), SERC Bldg., Rm. 239, Busch Campus, Rutgers University, 118 Frelinghuysen Road, Piscataway, NJ 08854. *Anyons, Braids, and Tangles*. Preliminary report.

Earlier (with D. H. Sharp), we described particles in two-dimensional space obeying anyon statistics by means of creation and annihilation fields. These fields naturally interpolate the unitary representations of the group of compactly-supported diffeomorphisms of the plane induced by characters of the braid group, and in turn satisfy  $q$ -commutation relations (where  $q$  is the anyonic phase shift). Subsequently (with S. Majid) we studied this construction in the framework of braided tensor categories, deriving a generalized exclusion principle when  $q$  is a root of unity. Building on these ideas (with R. Picken), we report on how to generalize this framework to accommodate creation and annihilation of anyon/anti-anyon pairs. The corresponding relative phases of multiparticle wave functions are associated with equivalence classes of tangles under (bundle) diffeomorphisms. (Received August 20, 2007)