

Abstract for an Invited Paper
for the TSS07 Meeting of
The American Physical Society

Rejuvenating Quantum Mechanics

FRANK WILCZEK, Massachusetts Institute of Technology

Modern quantum mechanics is over eighty years old, but recently new ideas have enriched our understanding of its possibilities. I'll talk, specifically, about how quanta of charge can be fractionalized, and how there can be particles (anyons) that are neither bosons nor fermions. These ideas are relevant to experiments and perhaps even to future technology, as I'll discuss.