

Abstract Submitted
for the MAR17 Meeting of
The American Physical Society

New parameterization for Quantum Degenerate Systems JIANDA WU, CHAO XU, CONGJUN WU, Univ of California - San Diego — We present a new parameterization method describing degenerate quantum systems with maximum allowed parameter space. It is deeply connected to the Grassmannian manifold embedded with specially constructed Plücker coordinates. We demonstrate that the parameterization naturally leads to Yang monopole holonomy in a special limit at the $SO(5)$ case. Further concrete examples are present to show how the parameterization may expand conventional understandings in topological systems, where possible practical applications are also discussed.

Jianda Wu
Univ of California - San Diego

Date submitted: 11 Nov 2016

Electronic form version 1.4