Abstract Submitted
for the DPP11 Meeting of
The American Physical Society

Quantum Macrophysics for New Turbulence Concepts[1] JOSEPH JOHNSON III, Pyramid Plasmas, LLC, EPHREM MEZONLIN, CePaST, Florida A&M University — The classical theory of Ginzburg-Landau second order phase transformations can be applied directly to the transition from laminar to turbulent flow. The generalization of the G-L approach to include turbulence connects the possibility of new insights on turbulence to a large class of second order phase transformations in physical systems. The use of techniques from quantum macrophysics in second order phase transformations affords a list of predictions about behaviors which are unique to the quantum macrophysics prospective.

[1]Work supported in part by grants from NSF and DOE to FAMU.

Joseph Johnson III
Pyramid Plasmas, LLC

Date submitted: 21 Jul 2011 Electronic form version 1.4