

Abstract Submitted  
for the APR07 Meeting of  
The American Physical Society

**Spiral Galaxy Model with Axial Plasma/Gas Vortex: A Possible Suggestion** C.F. GALLO, Superconix Inc — From the measured rotational velocity profiles of spiral galaxies, there appears a central “core” with zero central velocity that increases quickly with distance ( $\sim 15\%$  of galactic radius) to large constant velocity. This data implies a large centrifugal hydrodynamic force suggesting the “core” is a central axial plasma/gas vortex with the following features. (1) MINIMUM central Pressure/Density of Plasma/Gas. (2) Axial Vortex which is manifested as the observed axial Galactic Jets? (3) MAXIMUM central light intensity due to high temperature of energetic central axial vortex? Extensions of the model follow. (1) Matter is sucked into the Galactic Center by the Central Axial Vortex, and that matter is expelled via the central axial galactic jets in dynamic equilibrium over long time scale? (2) No galactic black holes? This vortex model does not address many other important issues such as Dark Matter, galactic evolution, plasma effects, galactic stability, relativistic effects, spiral details, galactic clusters, etc.

C.F. Gallo  
Superconix Inc

Date submitted: 09 Jan 2007

Electronic form version 1.4