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Non-spherical Distribution of Gravitational Field Flux under Integral Form Gauss's Law of Gravity to Interpret the Flat Rotation Curve and the Baryonic Tully-Fisher Relation of Disk Galaxies TE CHUN WANG, Chung Shan Industrial and Commercial School — This letter proposes a possible description of an integral Gauss's law of gravity with anisotropic gravitational flux distribution for the flat rotation curve and Baryonic Tully-Fisher relation of disk galaxies. It is pointed out first that a flux distribution of cylindrical symmetry on the side wall of a galactic disk may convert the inverse square radius dependence of the Newtonian gravitational field into a direct inverse dependence and the flat rotation curve can be obtained under this condition. Next, it is shown that below a critical field approximately 10ˆ-10 m/sˆ2, if we imagine the gravitational flux distribution switches to the columnar from being spherical, and assume that at the critical transition points, the field strength of both types of flux distribution are the same critical field strength, the Baryonic Tully-Fisher relation is proved valid.

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