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New Evidence of the Azimuthal Alignment of Quasars Spin Vector in the LQG U1.28, U1.27, U1.11, Cosmologically Explained.

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There has been observational evidence about spin axes of quasars in large quasar groups correlated over hundreds of Mpc. This is seen in the radio spectrum as well as in the optical range. There is not yet a satisfactory explanation of this “spooky” alignment.

This alignment cannot be explained by mutual interaction at the time that quasars manifest themselves optically. A cosmological explanation could be possible in the formation of superconducting vortices (cosmic strings) in the early universe, just after the symmetry-breaking phase of the universe.

We gathered from the NASA/IPAC and SIMBAD extragalactic databases the right ascension, declination, inclination, position angle and eccentricity of the host galaxies of 3 large quasar groups to obtain the azimuthal and polar angle of the spin vectors.

The alignment of the azimuthal angle of the spin vectors of quasars in their host galaxy is confirmed in the large quasar group U1.27 and compared with two other groups in the vicinity, i.e., U1.11 and U1.28, investigated by Clowes (2013).

It is well possible that the azimuthal angle alignment fits the predicted azimuthal angle dependency in the theoretical model of the formation of general relativistic superconducting vortices, where the initial axially symmetry is broken just after the symmetry breaking of the scalar-gauge field.

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