

Color-magnetic flux tubes in dense quark matter

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In color-superconducting quark matter gluons and photons mix, and thus an external ordinary magnetic field may induce color-magnetic flux tubes. I will discuss the structure of these flux tubes, in particular pointing out a novel flux tube configuration in color-flavor locked quark matter that has a 2SC core, rather than a completely unpaired one. This configuration is energetically preferred under neutron star conditions, and I will discuss possible consequences for sustained “color-magnetic mountains” and resulting gravitational waves of isolated neutron stars.

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