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**Do the superfluid vortices in CFL quark matter spontaneously decay?** S. KUMAR MALLAVARAPU, MARK ALFORD, Washington University in Saint Louis — It has been suggested in literature that the usual superfluid vortices/strings in high density color superconductivity are actually unstable. The idea is that there could be more fundamental strings namely the non-Abelian semi-superfluid strings which have color gauge flux tube. A combination of three such semi-superfluid strings which have zero net color flux is more stable than a single superfluid string, provided that the separation between the semi-superfluid strings is much larger than the size of each one. Is the semi-superfluid string configuration more stable than the superfluid string even for small separations? Does the single superfluid string spontaneously break into semi-superfluid strings? In this talk we offer some results that would help us answer these questions.

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