

# **Are the giant flares of SGRs an evidence for the birth of quark stars?**

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We propose that giant flares of SGRs can be interpreted as the conversion into quark matter of an isolated neutron star with a subcritical magnetic field  $\sim 10^{12}$  G. We show that in a timescale of  $\sim 10^5$  yrs, accretion from a fallback disk can increase the mass of the central object up to the critical mass for the conversion into a quark star. Also, several characteristics of the light curve of the giant flare of the SGR 1806-20 of December 27, 2004 (such as the spike and tail energies and timescales) can be explained as a result of the cooling and deleptonization of the central compact object after the conversion.