## **Quark Matter 2012**



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## Magnetic plasma and unusual confinmenets

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Confinement phenomenon for a long time was associated with Bose-Einstein condensation (BEC) of cirtain magnetic objects. In a series of previous works we had shown that it is indeed the case for lattice monopoles, which in pure gauge theory are about as numeroous near  $T_c$  as gluons. We can now show that with increasing number of quark flavors to  $N_f \sim 10$  the deconfinement transition moves to much stronger coupling, and thus magnetic monopoles will dominate electric excitations. We will also speculate that "unusual" magnetic objects can undergo BEC, as they known to do so in supersymmetric analogs of multi-flavor QCD.

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