

Abstract Submitted  
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**A Mean Field Theory for Superspin Glasses** DEREK WALTON

— Concentrated assemblies of magnetic nanoparticles have been shown to exhibit spin glass phenomena, particularly rejuvenation. It is clear that these effects are dependent on interactions among the nanoparticles. I will describe a classic mean field theory for the local magnetic field resulting from the interactions, and show how it can account for superspin glass phenomena.

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