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**Possible role of (nearly) localised spin minority electrons in the CMR manganese oxides** DENIS I. GOLOSOV, Bar-Ilan University — A new minimal model is constructed for the doped manganese oxides which exhibit colossal magnetoresistance (CMR), involving broad spin-majority conduction band as well as nearly localised spin-minority electron states. A simple mean field analysis yields a temperature-dependent hybridised band structure with suppressed carrier weight at the Fermi level. Spin stiffness is complex, indicating unusually strong spin wave damping. Experimental and theoretical investigations are needed to further verify the relevance of the proposed model. Preprint arXiv:0907.5512

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