Itinerant versus localized spins in Na_xCoO_2

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Compounds of the series Na_xCoO_2 ($0.25<x<1$) represent a physical realization of magnetic systems with planar triangular symmetry, in which metallicity is achieved by controlled carrier injection. The simple metallic phase ($x<0.5$) is separated from the local moment metallic phase ($x>0.5$) by the insulating phase occurring at $x=0.5$. A variety of interesting phenomena is observed at different values x of Na-concentration upon varying the temperature. We discuss the results of ^{23}Na- and ^{59}Co-NMR measurements for the cases of ($x= 0.7$ and 0.5). In particular we will address some of the difficulties associated with the character of the Co 3d-electron based magnetism in these compounds.