Abstract Submitted
for the MAR06 Meeting of
The American Physical Society

Luttinger sum rules in the 2-channel spin 1 Kondo chain IAN MCCULLOCH, Institut fur Theoretische Physik C, RWTH-Aachen — We present numerical results, using the DMRG method, for the zero-temperature phase diagram of the one-dimensional 2-channel Kondo lattice model, coupled to $S = 1$ localized spins. Unlike the previously studied 1-channel $S = 1/2$ case, the $S = 1$ localized spins in the 2-channel model permit a gapped Haldane state, which stabilizes the weak-coupling ("small" Fermi surface) paramagnetic phase. We focus on the paramagnetic region approaching half-filling, where the interesting possibility has been recently raised of a non-trivial crossover region where the Fermi wavenumber varies continuously.

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Date submitted: 30 Nov 2005 Electronic form version 1.4