Crossed Spin-1/2 Heisenberg Chains as a Quantum Impurity Problem[1] SEBASTIAN REYES, Brookhaven National Laboratory and Stony Brook University, ALEXEI TSVELIK, Brookhaven National Laboratory — Using equivalencies between different models we reduce the model of two spin-1/2 Heisenberg chains crossed at one point to the model of free fermions. The spin-spin correlation function is calculated by summing the perturbation series in the interchain interaction. The result reveals a power law decay with a nonuniversal exponent.

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