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Probing the pairing symmetry and pair charge stiffness of doped $t-J$ ladders: a DMRG study ADRIAN E. FEIGUIN, Microsoft Research, Station Q, S. R. WHITE, UCI, D. J. SCALAPINO, UCSB — We perform the numerical equivalent of a phase sensitive experiment on $t-J$ ladders. We apply proximity effect fields with different complex phases at both ends of an open system and we study the transport of Cooper pairs. Measuring the response of the system and the induced Josephson current, Density Matrix Renormalization Group calculations show how, depending on the doping fraction, the rung-leg parity of the pair field changes from minus to plus as the density of holes is increased. We also study the pair charge stiffness.

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