Abstract Submitted for the MAR16 Meeting of The American Physical Society

Improving the efficiency of the Finite Temperature Density Matrix Renormalization Group method¹ ALBERTO NOCERA, GONZALO AL-VAREZ, Oak Ridge National Laboratory — I review the basics of the finite temperature DMRG method, and then show how its efficiency can be improved by working on reduced Hilbert spaces and by using canonical approaches. My talk explains the applicability of the ancilla DMRG method beyond spins systems to t-J and Hubbard models, and addresses the computation of static and dynamical observables at finite temperature. Finally, I discuss the features of and roadmap for our DMRG++ codebase.

¹Work done at CNMS, sponsored by the SUF Division, BES, U.S. DOE under contract with UT-Battelle. Support by the early career research program, DSUF, BES, DOE.

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Date submitted: 02 Nov 2015

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