

Abstract Submitted
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Discretization of the imaginary-time Greens function ANDRO SABASHVILI, MATS GRANATH, HUGO STRAND, STELLAN OSTLUND, Gothenburg University — Finite temperature Greens functions are defined on an infinite set of Matsubara frequencies. A well known numerical difficulty is that the discontinuity in the Greens function in the imaginary time domain generates a long tail in the frequency representation which makes truncating a numerical calculation to a finite number of frequencies difficult. We have explored a particular “periodization” procedure designed to (1) close the Greens function approximation with a finite and relatively small number of Matsubara frequencies and (2) to be consistent with the Ward-Luttinger-Baym-Kadanoff variational principle. In addition to describing our truncation procedure we will show results of applying the method to standard DMFT calculations. We obtain results that are consistent with other well known but numerically more complex methods.

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