which is here cut off by the (constant) number of 1000 Matsubara frequencies used in the QMC program. Note that the large deviations from the asymptotic behavior at relatively low frequencies are physical; indeed, these deviations are the nontrivial result of the QMC calculations.

For further practical applications of the new QMC code and for the generalization of the asymptotic expansion of the self-energy to the multi-band case, see Knecht (2002). Interestingly, the multi-band case is more complicated: here, the expansion of the self energy does not only involve expectation values of densities, but also of pairwise double occupancies.