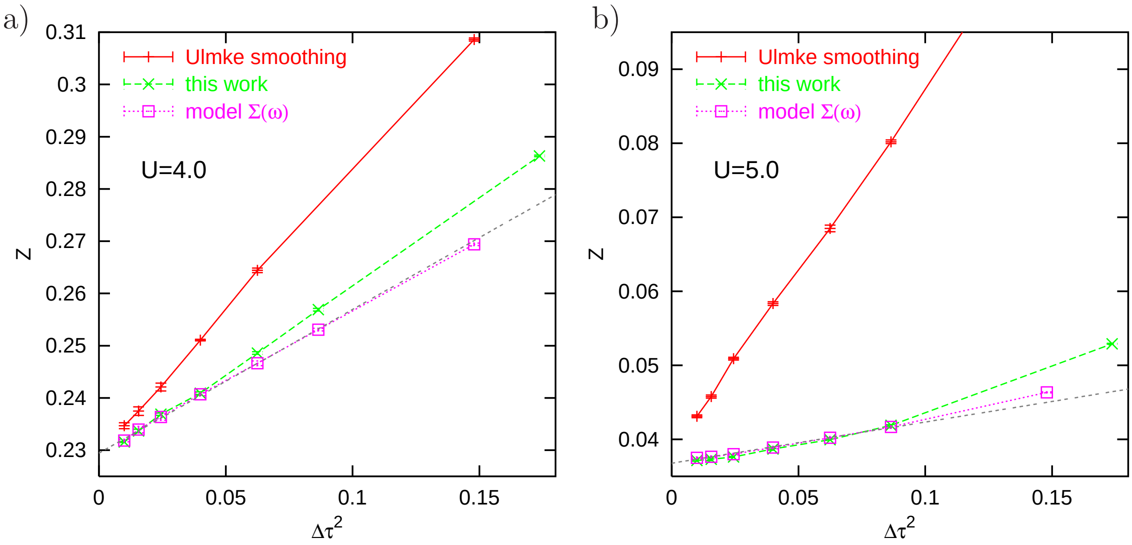

Figure C.8: QMC estimates of the quasiparticle weight Z for semi-elliptic DOS at $T = 0.1$ as a function of $\Delta\tau^2$.

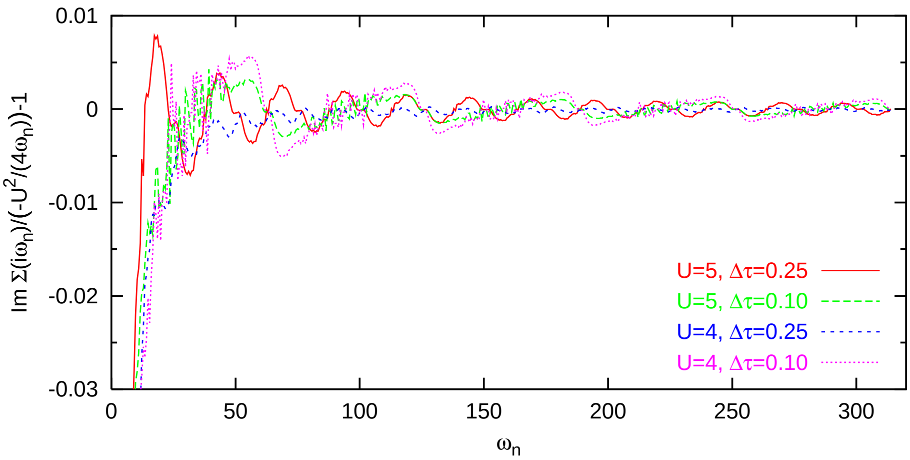

Figure C.9: Relative deviation of $\mathrm{Im}\,\Sigma(i\omega_n)$ (as computed using the new Fourier-transformation scheme for $T = 0.1$) from the asymptotic large-frequency form $-U^2/(4\omega_n)$; for the low-frequency parts of $\mathrm{Im}\,\Sigma(i\omega_n)$, see Fig. C.2 and Fig. C.3.

transition they also show that even more accurate results can be calculated at lower computational cost using the new code. We note that the concept of the method described here is similar to Jarrell's QMC implementation. The latter is, however, less stable since its Fourier transformation relies on a numerical IPT calculation. At least for a symmetric DOS at half filling, our method is unconditionally stable for arbitrarily large frequencies without the need for bandpass filters. This is illustrated in Fig. C.9. Evidently, even *relative* deviations from the asymptotic behavior never exceed 0.01 at large frequencies ($|\omega_n| \gtrsim 20$) and decay fast in the limit $|\omega| \to \infty$