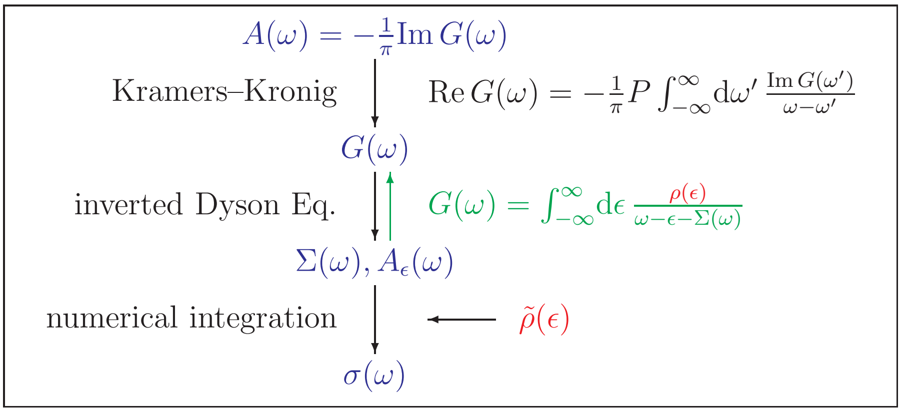

Figure 4.26: Scheme for the computation of $\sigma(\omega)$ on the basis of the local spectral function $A(\omega)$ (cf. Sec. 1.4 and Sec. 3.8), of $\rho(\epsilon)$, and of $\tilde{\rho}(\omega)$. A Kramers-Kronig transformation produces the full Green function from which the self-energy $\Sigma(\omega)$ can be obtained via an inversion of the momentum integrated lattice Dyson equation. Finally, the numerical evaluation of the integrals in (4.152) yields $\sigma(\omega)$.

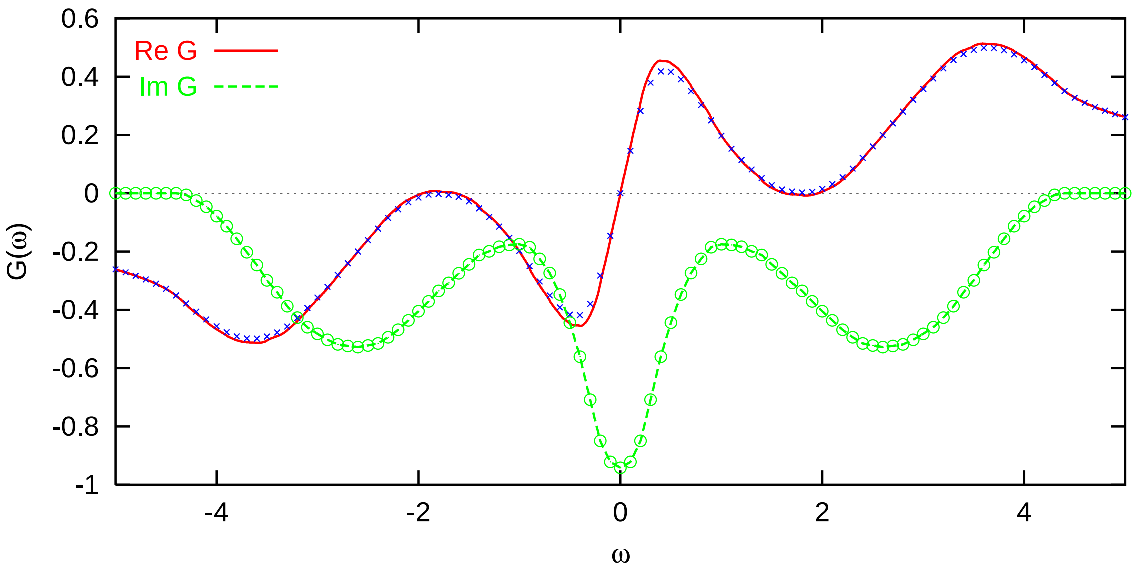

Figure 4.27: QMC results (for $\Delta\tau = 0.1$) at half filling, semi-elliptic DOS, $T = 0.05$, and $U = 4.0$: Imaginary part of the real-frequency Green function $\mathrm{Im}\, G(\omega)$ (circles) as obtained from MEM on a grid with $\Delta\omega = 0.1$. This function is interpolated on a fine grid with $\Delta\omega = 0.005$ (dashed line) in order to obtain $\mathrm{Re}\, G(\omega)$ (solid line) via Kramers-Kronig transformation. Small crosses indicate the corresponding result without interpolation.