(a) Surface gravity
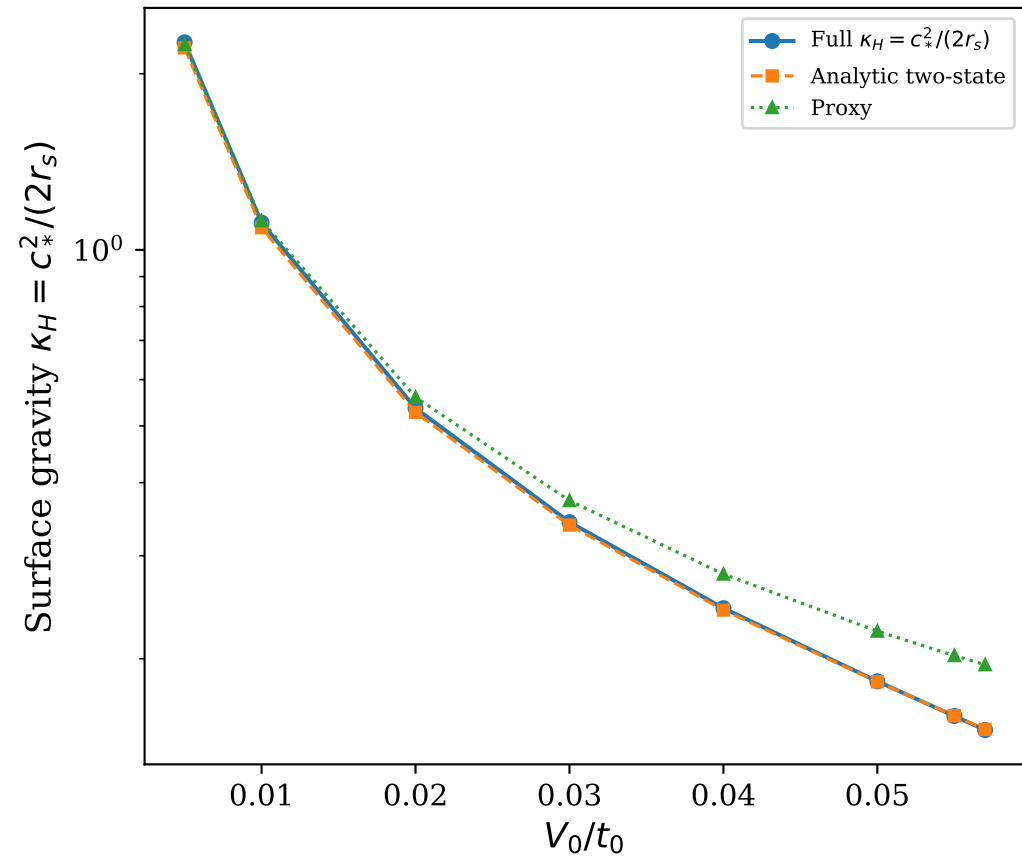
(b) Hawking temperature $T_H = \hbar \kappa_H / (2\pi c_*)$