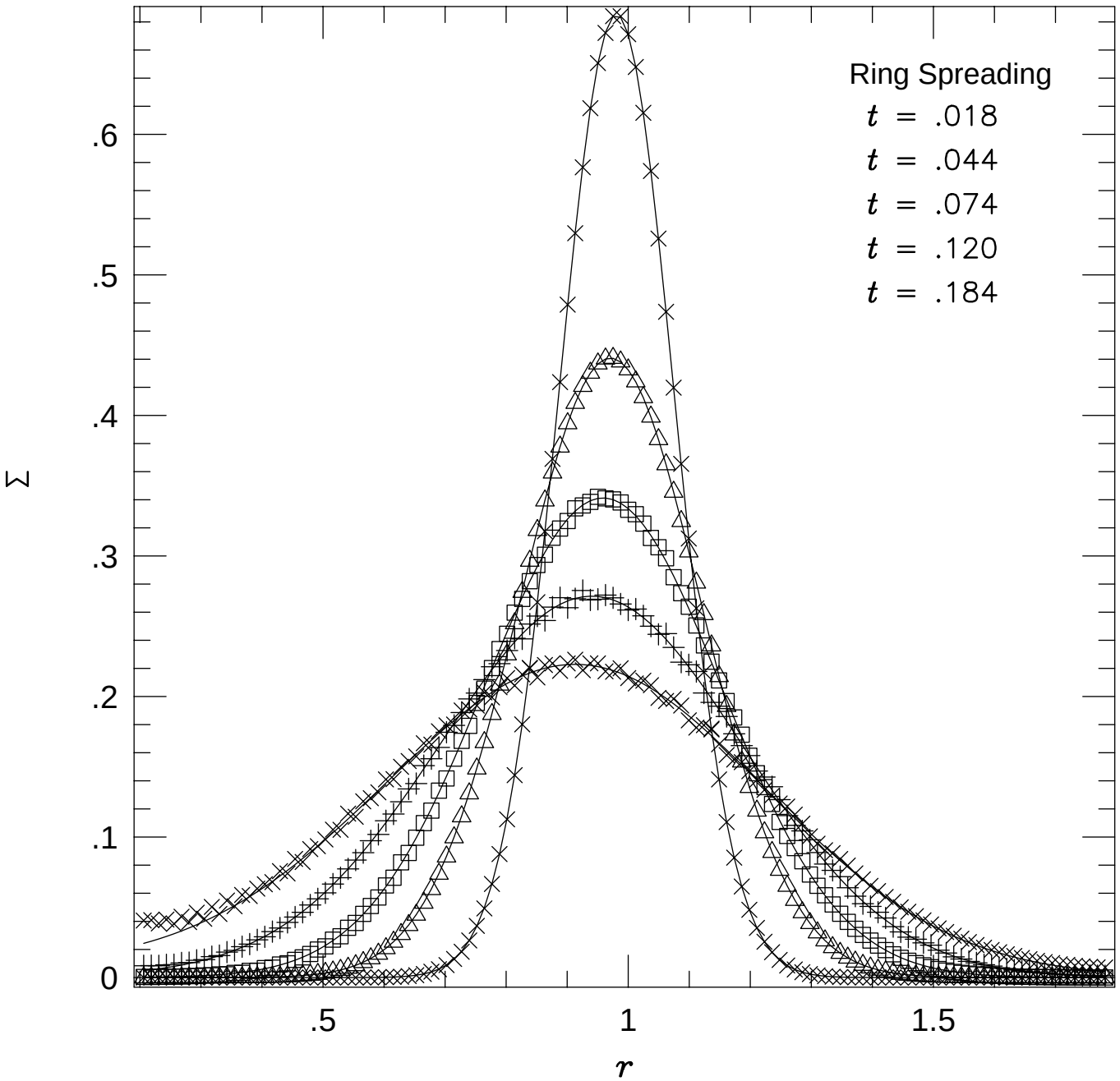
Test: Ring Spreading

$NX = 128, \nu = 10^{-6}, N_{tot} = 1.4\,10^5$

Solid line: analytical solution, Symbols: numerics, Time: viscous evolution time



$$\Sigma_r(r,t) = \frac{C}{\tau x^{1/4}} \exp\left(-\frac{1+x^2}{\tau}\right) I_{1/4}\left(\frac{2x}{\tau}\right)$$

$(x = r/r_0,\, C = 1/(\pi r_0^2),\, \tau = t/t_v,\, t_v = r_0^2/(12\nu))$