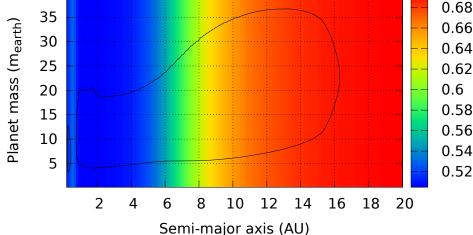Evolution of the linear barotropic torque Γ/Γ_0