# Time-dependent models of two-phase accretion discs

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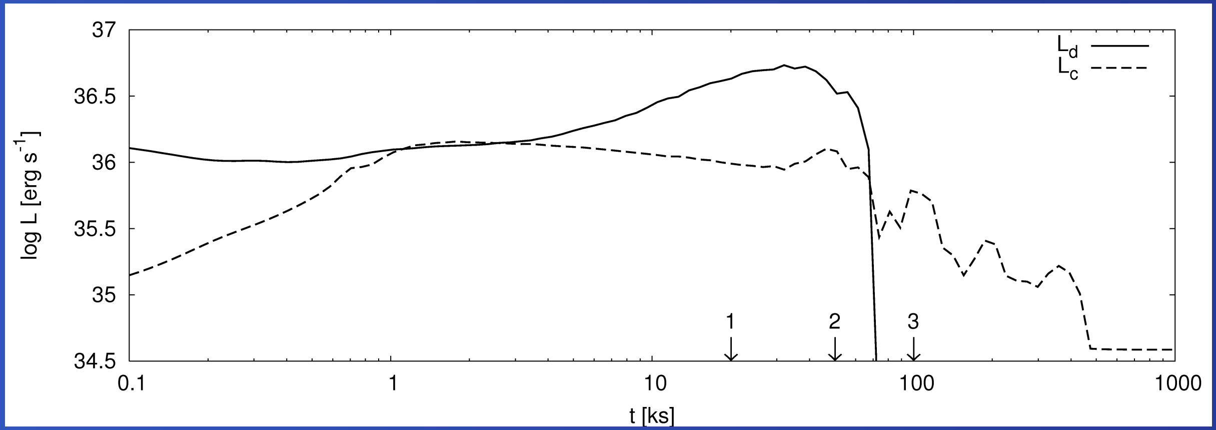
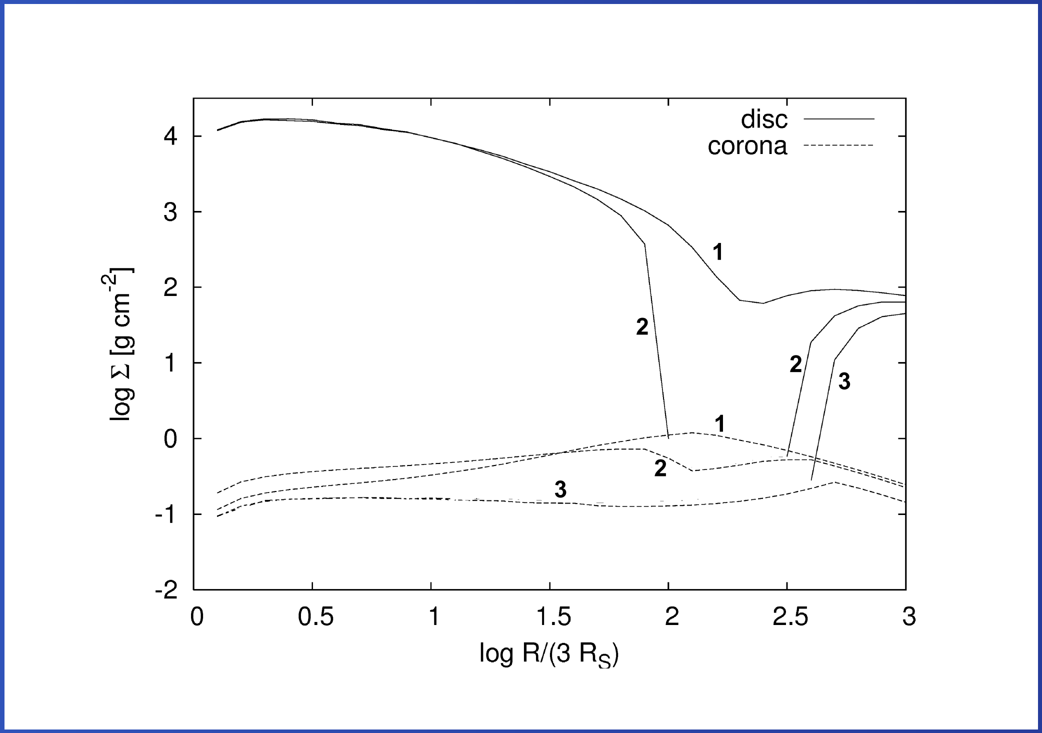
# The model

- Use geometrically thin by optically thick disc and optically thin but geometrically rather thick corona
- Trace the thermal and viscous evolution of the disc time-dependently
- Use the sandwich geometry
- Corona and disc are heated by $\alpha P$
- Corona cools by Bremsstrahlung and Compton radiation
- Corona heats disc which cools as a standard disc
- Mass can be exchanged via thermal conduction across the boundary
- Either disc or corona can cease to exists at some point

# The result: $\dot{M} = 10^{-3}\dot{M}_{\mathbf{Edd}}$, $M = 10\ \mathbf{M}_{\odot}$, $\alpha = 0.1$



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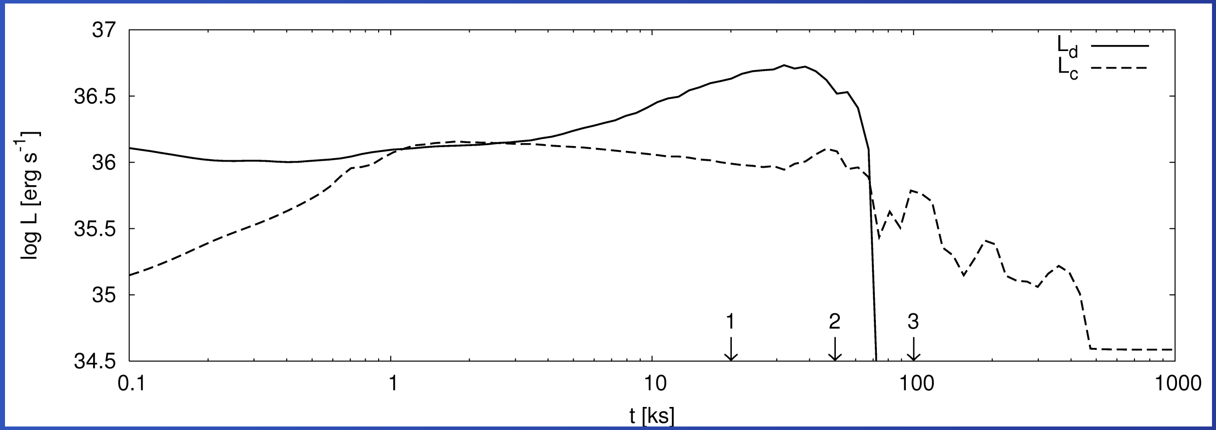


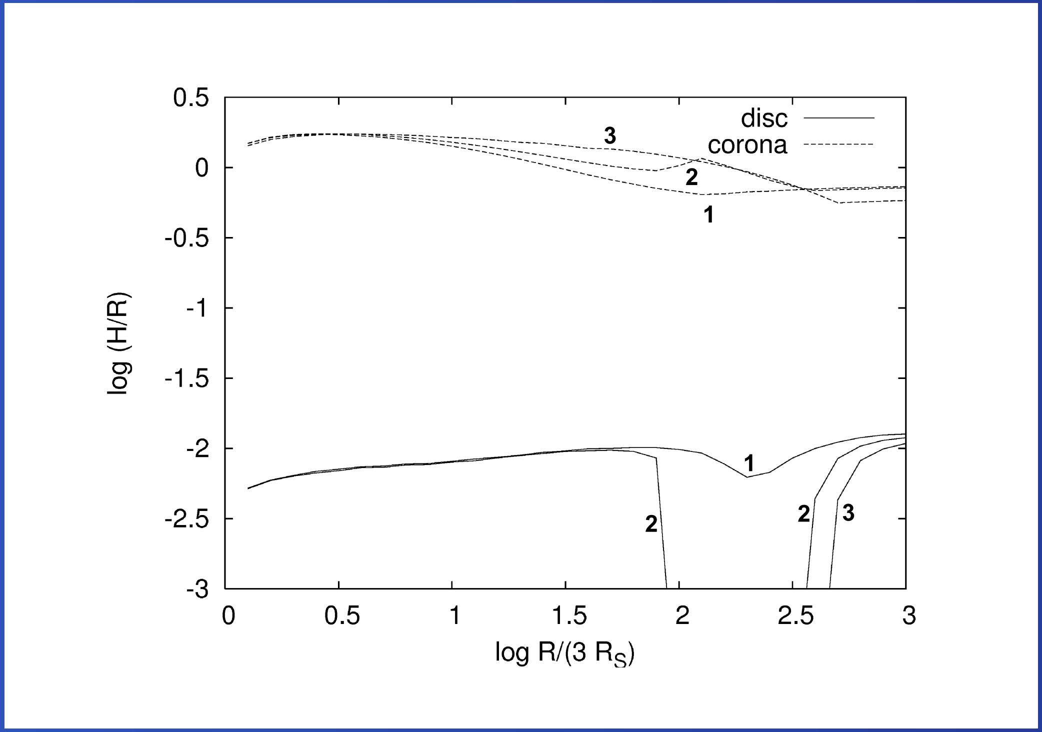

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