

Constants/Conversions:

$$\begin{aligned}
c &= 3 \times 10^{10} \text{ cm/s} & G &= 6.67 \times 10^{-8} \text{ cm}^3/\text{g/s}^2 \\
\sigma &= 5.67 \times 10^{-5} \text{ erg/cm}^2/\text{K}^4/\text{s} & 1 \text{ yr} &\approx \pi \times 10^7 \text{ sec} \\
M_{\odot} &= 2 \times 10^{33} \text{ g} & R_{\odot} &= 6.96 \times 10^{10} \text{ cm} \\
M_{\oplus} &= 6 \times 10^{27} \text{ g} & R_{\oplus} &= 6.37 \times 10^8 \text{ cm}
\end{aligned}$$

Formulae:

$$\begin{aligned}
T_{disk} &= \left(\frac{3GM\dot{M}}{8\pi\sigma R^3} \right)^{1/4} & T_{max} &= 0.488 T_{disk} \\
R_s &= \frac{2GM}{c^2} & \lambda_{peak} T &= 0.2 \text{ cm K} \\
F_{self \text{ grav}} &\approx \frac{GM^2}{x^2} & F_{tidal} &= \frac{2GMmx}{r^3} \\
\Omega_{kep} &= \sqrt{\frac{GM}{r^3}} & v_{kep} &= \Omega_{kep} r
\end{aligned}$$

Accretion disks around different objects: In general, the amount of matter falling onto an accretion disk and into the central object varies by several orders of magnitude, but a good approximate value for objects accreting in a binary system is $\dot{M} = 10^{-8} M_{\odot}/\text{yr}$, and for super-massive black holes is $\dot{M} = M_{\odot}/\text{yr}$.

Results:

Obj.	M (M_{\odot})	R	$\dot{M} (\frac{M_{\odot}}{\text{yr}})$	T_{max} (K)	λ_{peak}	λ range	$F_{\oplus, tidal}$ (dyn)	$\Omega_{kep} (\frac{\text{rad}}{\text{s}})$	$v_{kep} (\frac{\text{cm}}{\text{s}})$
WD	.85	.0095 R_{\odot}	10^{-8}	7.4×10^4	27 nm	UV	6×10^{36}	0.6	4×10^8
NS	1.4	10 km	10^{-8}	10^7	0.2 nm	X-ray	3×10^{45}	1.4×10^4	1.4×10^{10}
BH	3	$3R_s$	10^{-8}	6×10^6	0.3 nm	X-ray	3×10^{44}	4.6×10^3	1.2×10^{10}
SMBH	10^8	$3R_s$	1	10^5	18 nm	UV	2.8×10^{29}	10^{-4}	1.2×10^{10}
MS*	1	1	10^{-8}	2300	.85 μm	IR	6×10^{30}	6×10^{-4}	4.4×10^7

$$F_{\oplus, self \text{ gravity}} \approx 6 \times 10^{30} \text{ dynes}$$