The Physics of Interstellar

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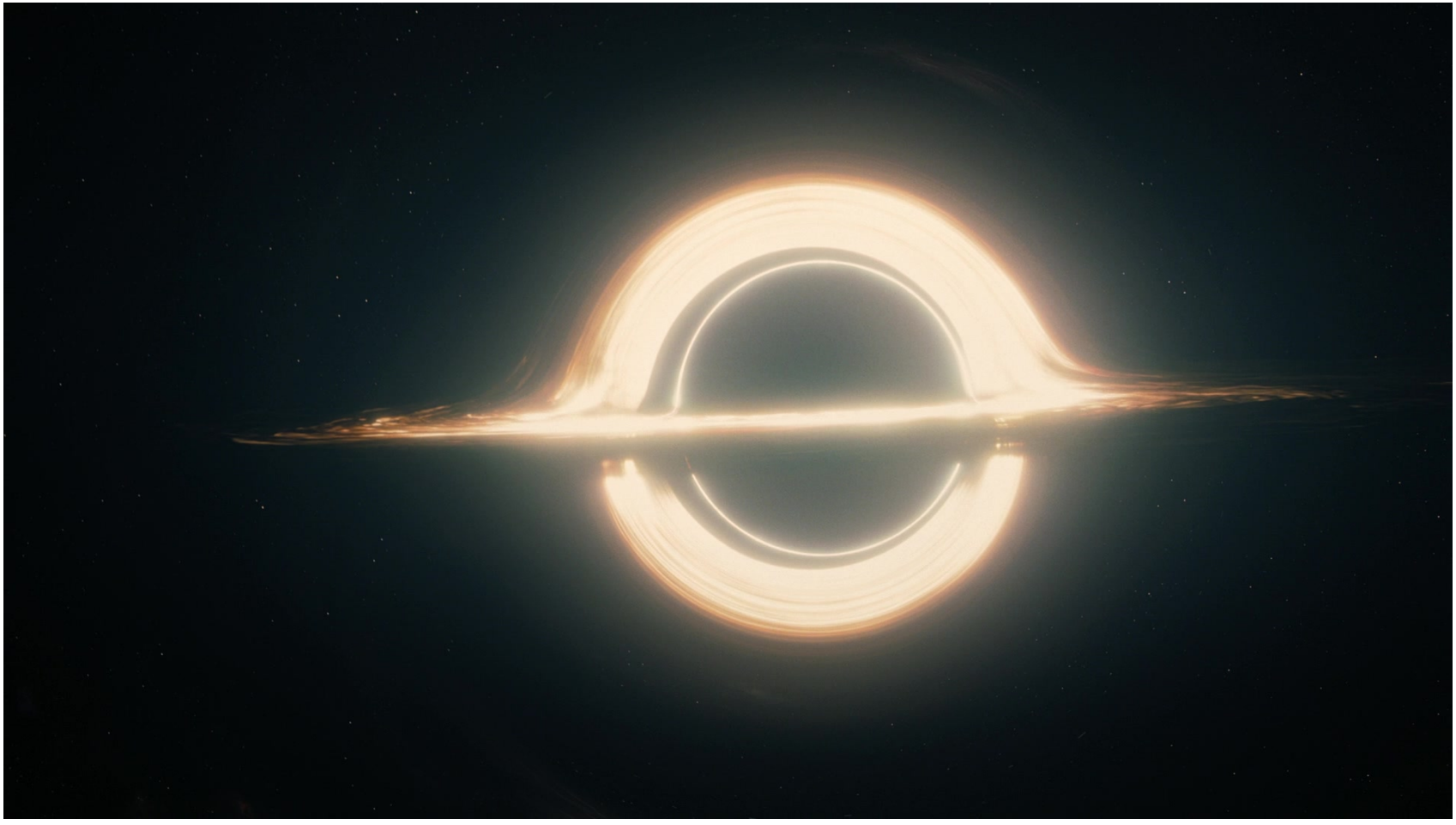
Gravitational lensing of spinning (Kerr) black holes



Spoiler alert!

”...but they constructed this 3-dim. (dimensional) space inside their 5-dim. reality to allow you to understand it...”

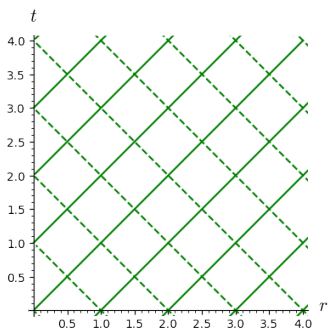
Einstein's Theory of General Relativity

$$R_{ab} - \frac{1}{2} g_{ab} R = 8\pi G_N T_{ab}$$

Metric g

Minkowski metric (flat)

$$g = -dt^2 + dx^2 + dy^2 + dz^2$$



Schwarzschild (static, non-spinning black hole) metric

$$g = -d\tau^2 = -\left(1 - \tfrac{r_s}{r}\right) dt^2 + \left(1 - \tfrac{r_s}{r}\right)^{-1} dr^2 + r^2(d\theta^2 + \sin^2\theta d\phi^2)$$