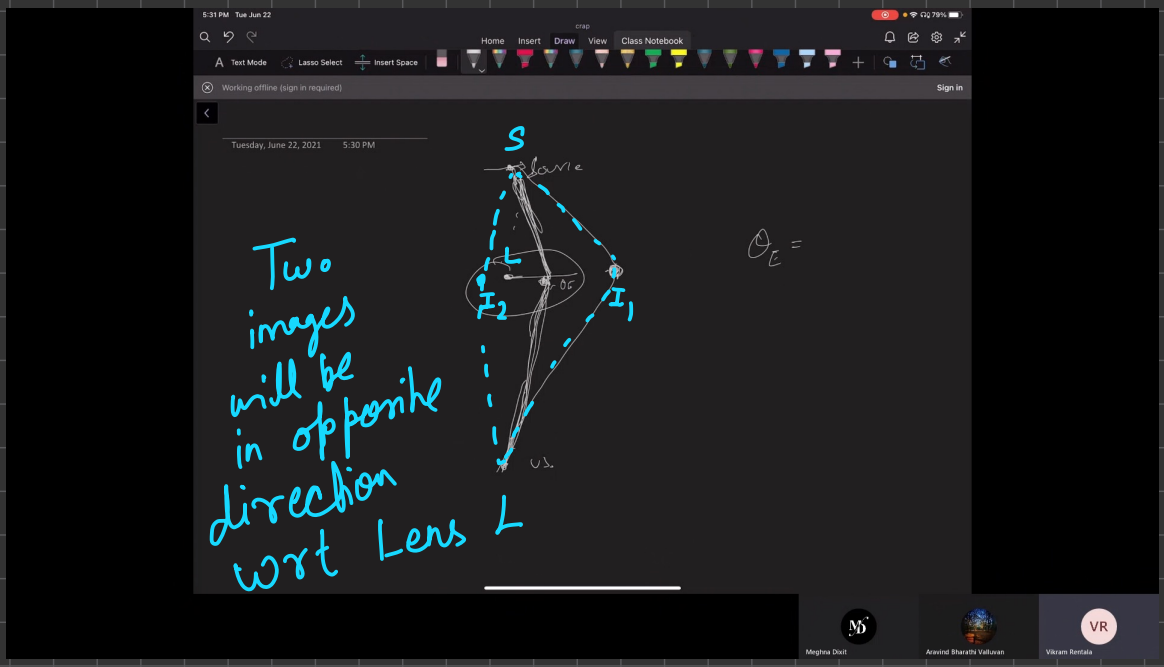
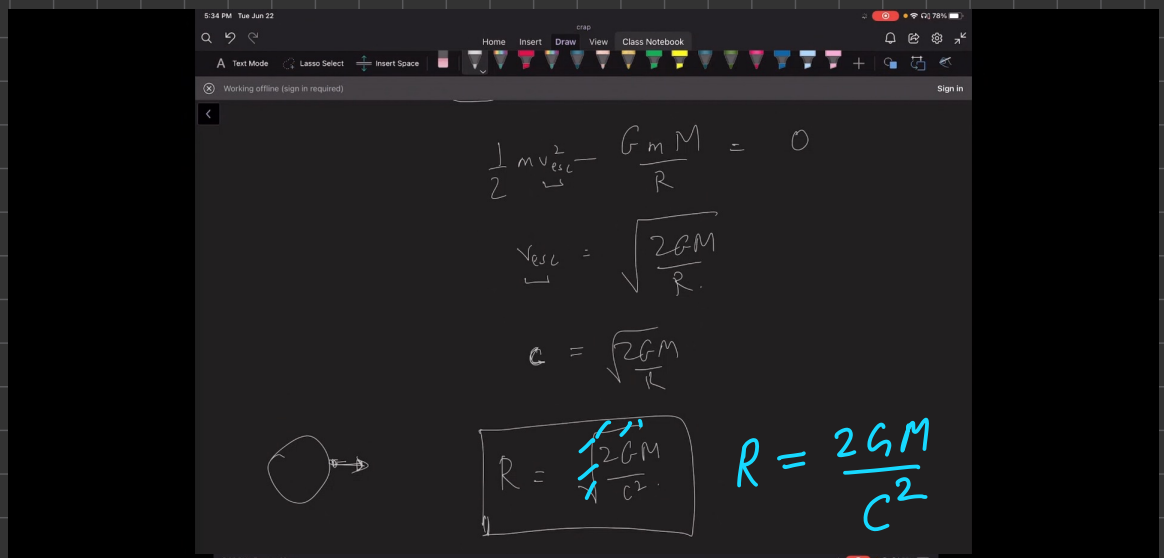
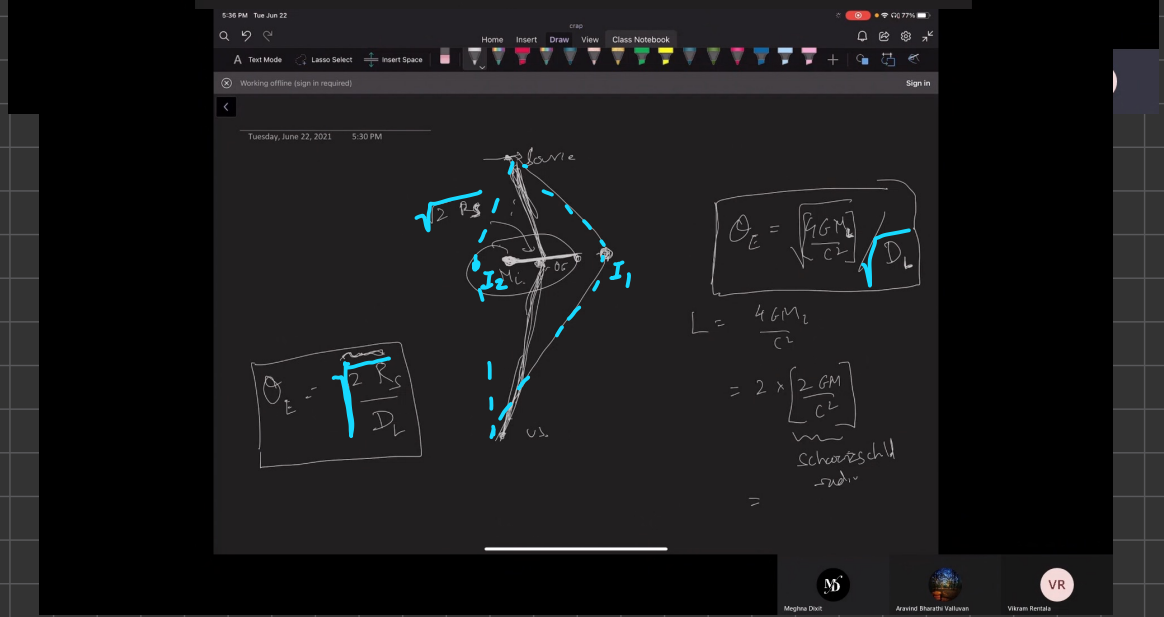
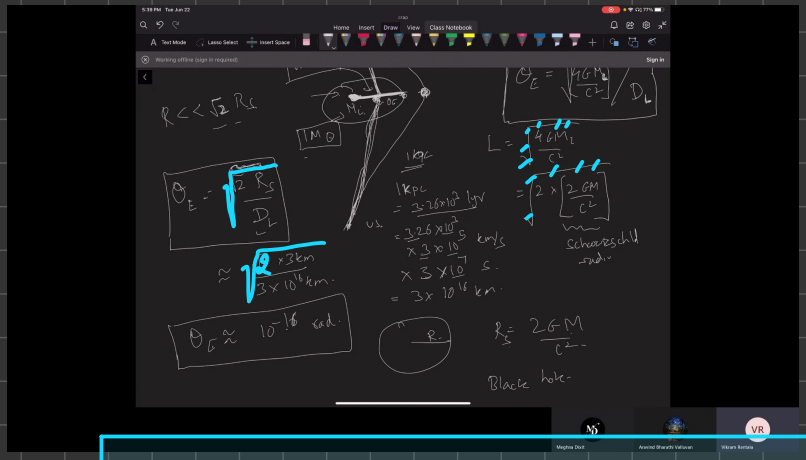
⇒ Last GRB lensing paper discussion Comments.

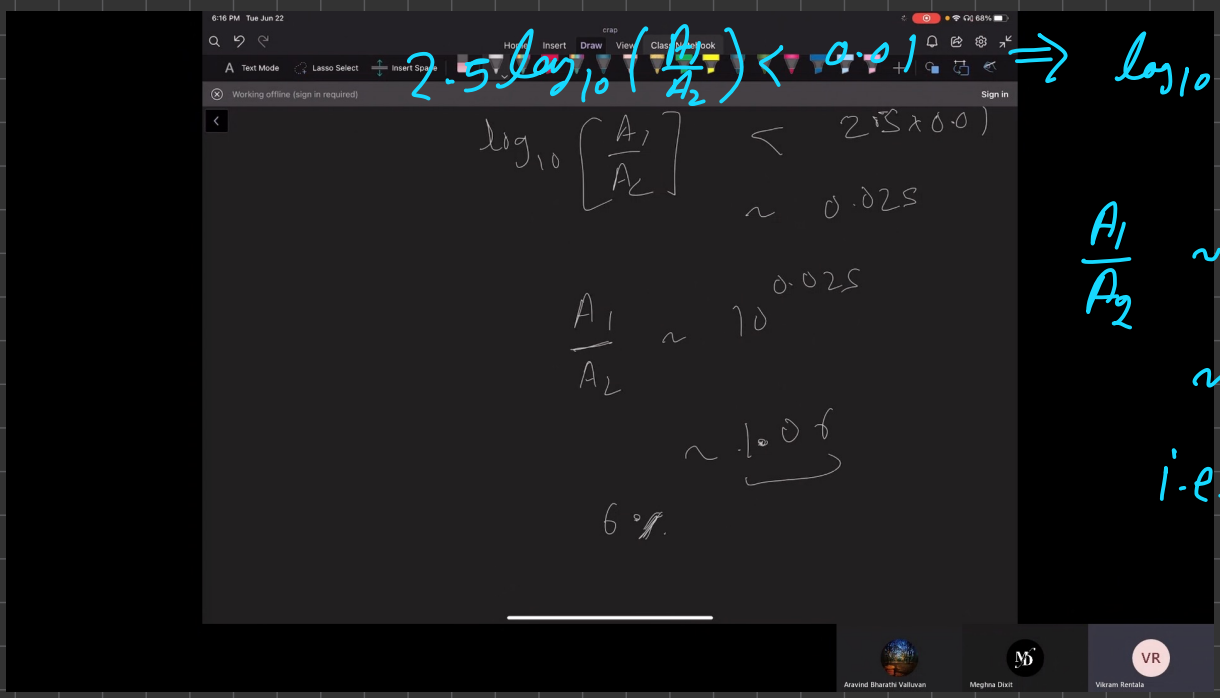








$$\theta_E = \sqrt{\frac{2R_s}{D_L}} = \sqrt{\frac{2 \times 3\ \text{km}}{3 \times 10^{16}\ \text{km}}} \approx 10^{-8}\ \text{rad}$$



$$2.5 \log_{10}\left(\frac{A_1}{A_2}\right) < 0.01 \Rightarrow \log_{10}\left(\frac{A_1}{A_2}\right) < \frac{0.01}{2.5}$$

$$\log_{10}\left[\frac{A_1}{A_2}\right] < 2.5 \times 0.01$$

$$\sim 0.025$$

$$\frac{A_1}{A_2} \sim 10^{0.025}$$

$$\sim 1.06$$

6 %.

$$\frac{A_1}{A_2} \sim 10^{0.004}$$

$$\sim 1.009$$

i.e. 0.9 %

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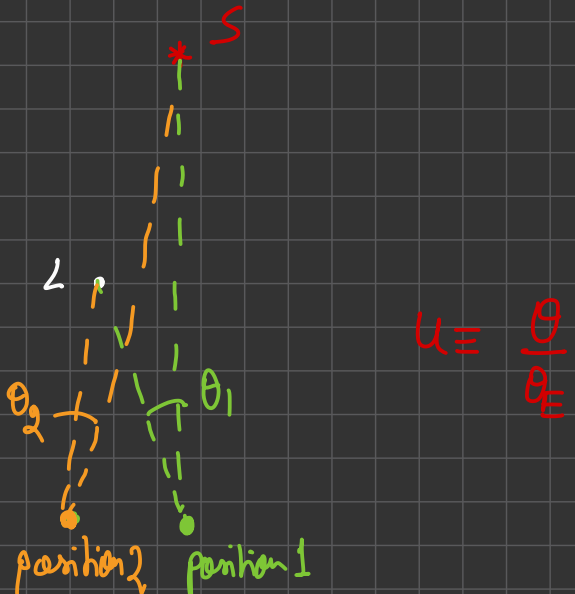
Issue of resolution :-

We don't have to resolve the two images of stars/GRB rather as

$$A(u) = \frac{u^2+2}{2u\sqrt{u^2+4}}$$



$$u = \frac{\theta}{\theta_E}$$

Hence, A changes from two positions bcoz u changes.