



CONSTRAINTS ON THE VERY HIGH ENERGY GAMMA-RAY EMISSION FROM GRB 170206A WITH HAWC

Yunior Pérez

Magda Gonzalez and Nissim Fraija for the HAWC
Collaboration

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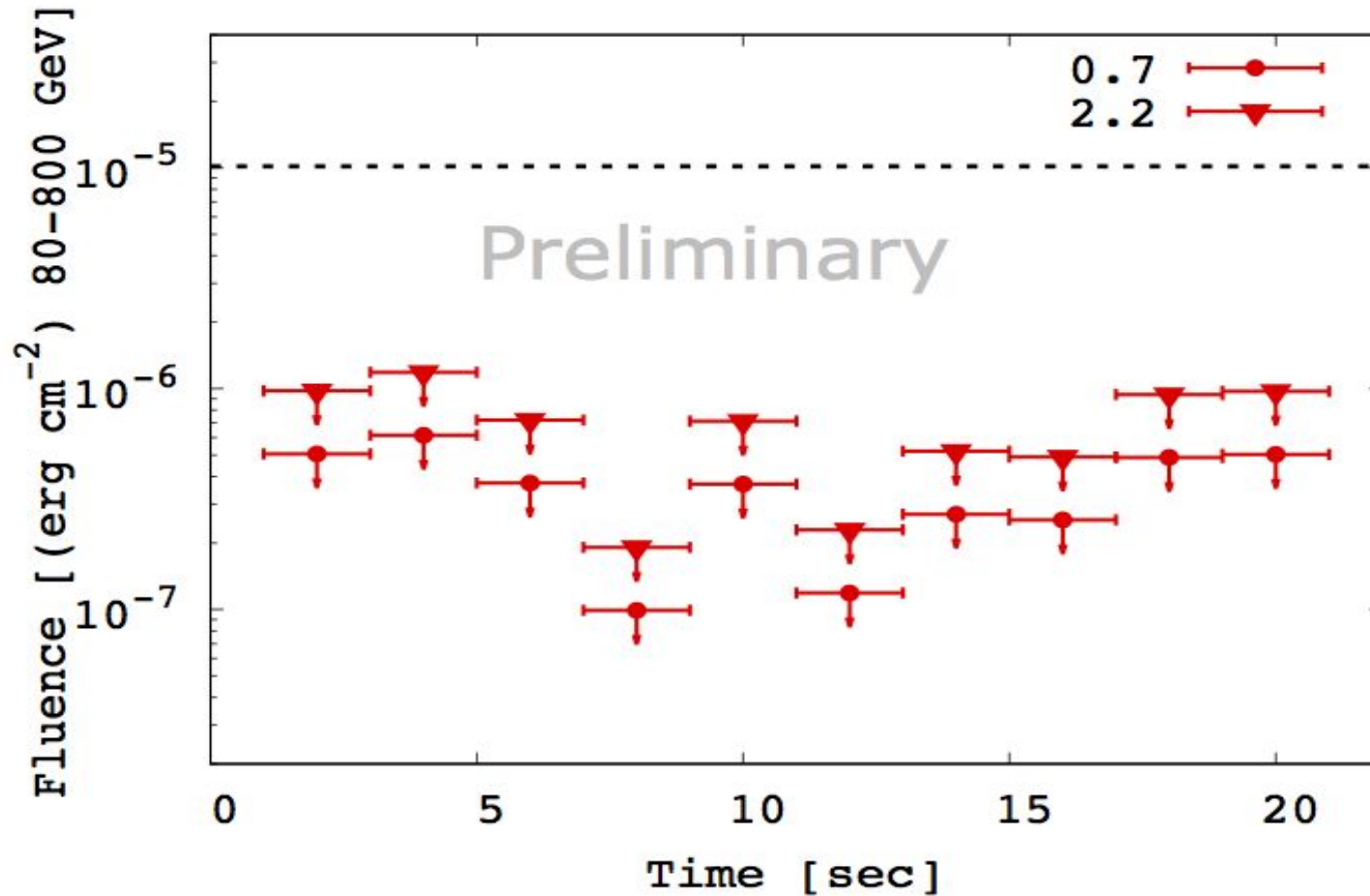
HAWC Observatory



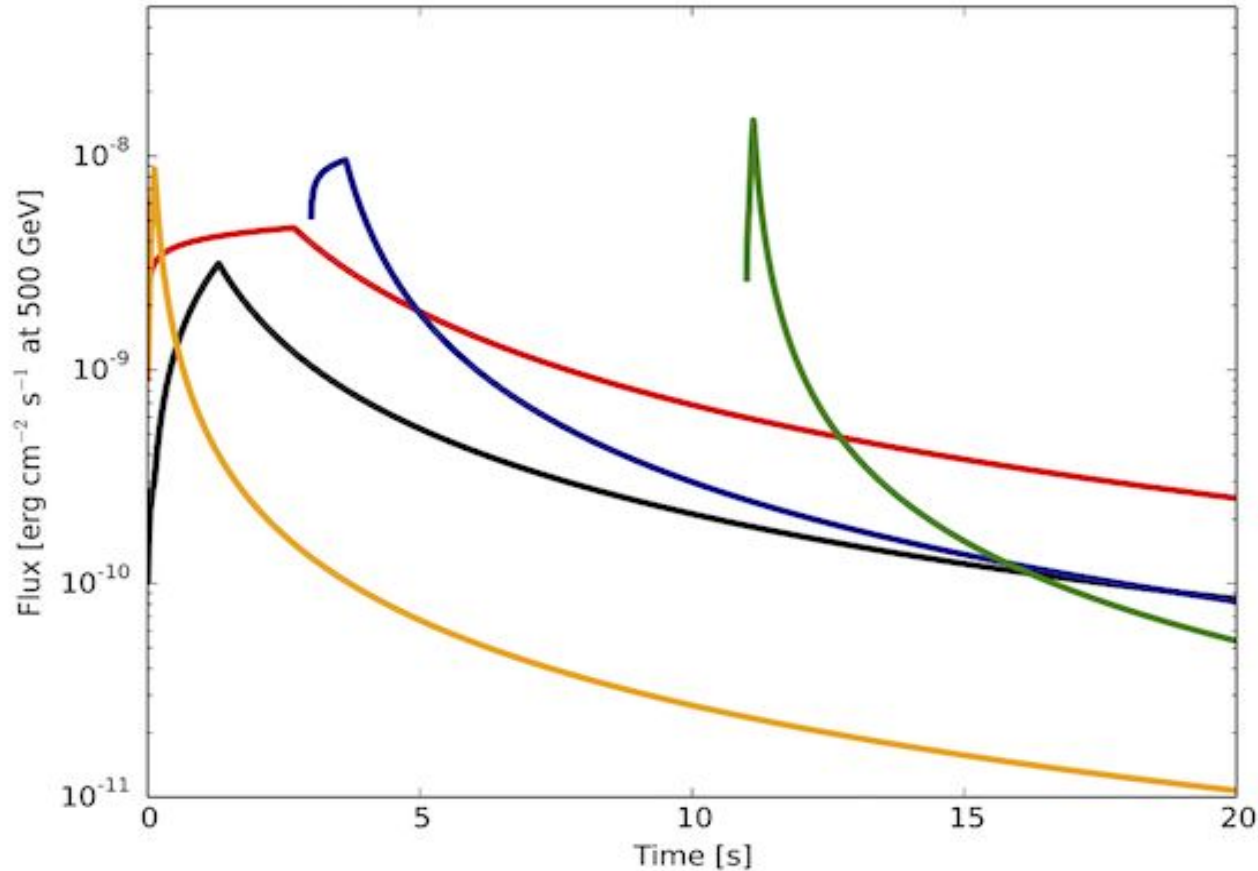
HAWC Upper limits

Assume SSC emission, obtain LC and compare with flux limits considering all regimes (fast and slow cooling) assuming a $z = 0.3$.

GRB 170206A



Theoretical light curves



Fast Cooling

$$\epsilon_B = 1.4 \times 10^{-2} \quad \epsilon_e = 2.6 \times 10^{-2}$$

$$\epsilon_B = 6.5 \times 10^{-3} \quad \epsilon_e = 1.3 \times 10^{-2}$$

$$\epsilon_B = 5.7 \times 10^{-4} \quad \epsilon_e = 7.1 \times 10^{-3}$$

Slow Cooling

$$\epsilon_B = 1.9 \times 10^{-4} \quad \epsilon_e = 8.0 \times 10^{-3}$$

$$\epsilon_B = 7.8 \times 10^{-6} \quad \epsilon_e = 4.5 \times 10^{-2}$$

Parameter space assumes SSC emission and restricted by upper limits and energy break the Klein-Nishina (KN) in the fast cooling regime.

