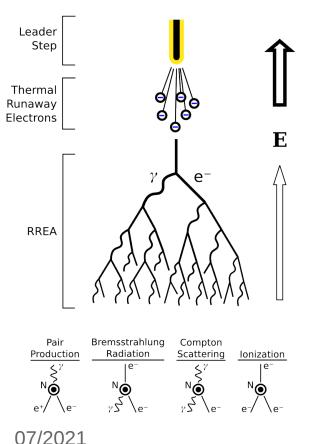
Insight Into Lightning Initiation via Downward Terrestrial <u>Gamma-ray Flash Observations at Telescope Array</u>

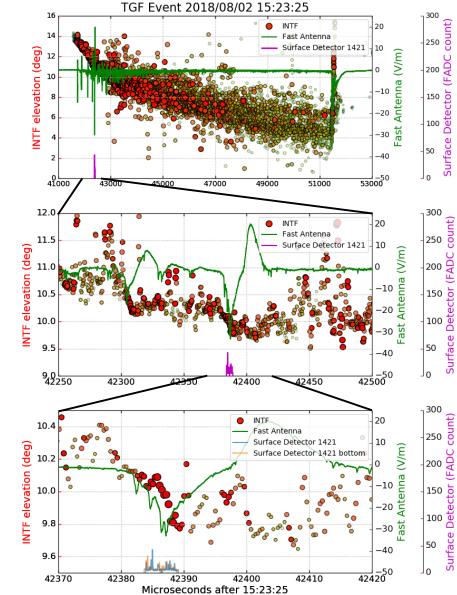
Summary Slide

- Downward TGFs occur during strong IBPs in the initial leader steps of downward negative lightning
 - Additionally correlated with fast negative breakdown and sub-pulses



- Evidence of individual gamma-rays with energies of at least 6.5 MeV
- Finding published in JGR: Atmospheres

10.1029/ 2019JD031940



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