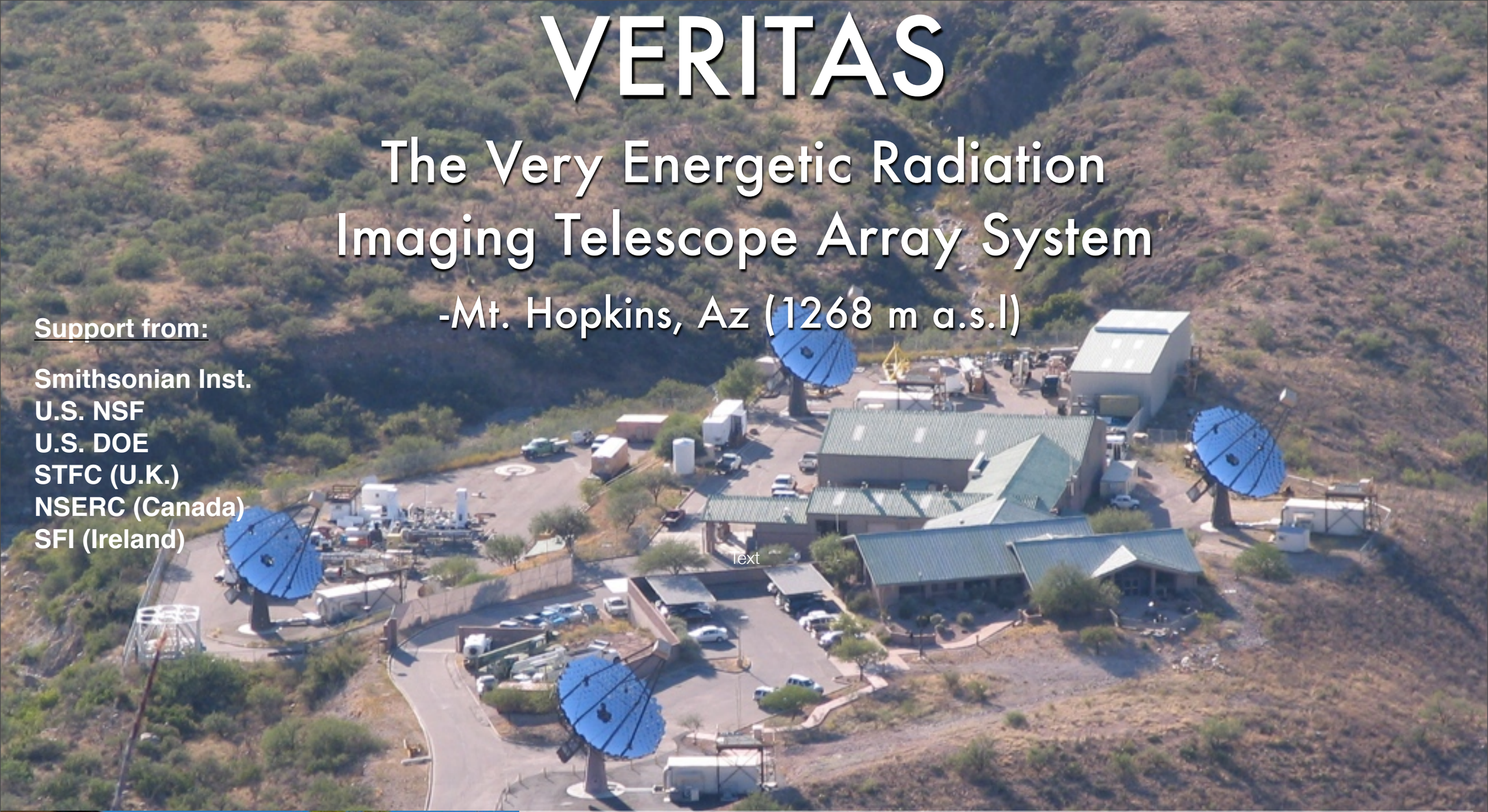
VERITAS

The Very Energetic Radiation Imaging Telescope Array System

-Mt. Hopkins, Az (1268 m a.s.l)



<u>Support from:</u>

Smithsonian Inst.
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VERITAS

* energy range: 80 GeV to >30 TeV (spectral reconstruction starts at 150 GeV)
* energy resolution: 15% at 1 TeV
* angular resolution: <0.1 deg at 1 TeV, 0.14 deg at 200 GeV (68% values)
* source location accuracy: <50 arcseconds
* point source sensitivity: 1% Crab in <30h, 10% in <30 min
* observation time per year: 1000 hours non-moonlight, ~300 hours moonlight

Rapid followup Capabilities:

Example: GRB Alerts from Fermi-LAT/Swift/Agile:

-react to GCN socket alerts, on avg 2-3 minutes until start of observations

-rapid analysis turnaround: real time for quick analysis, 1-2 hours for more detailed. Preliminary results (after collab checks) could be commumicated privately in as little as 24 hours.

Strong detection products: source flux above threshold, 2d skymap, lightcurve

Weak signal products: 99% CL Upper limits

Similar agreements already exist with HAWC, Fermi, Swift, IceCube and has worked quiet well, obtaining a large dataset of ToO observations.