



Follow-up from Sicily with APT2

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INAF





M.G. Fracastoro Station

Serra La Nave (Mt. Etna)

+14.973° E, +37.692° N, 1725m a.s.l.





M.G. Fracastoro Station

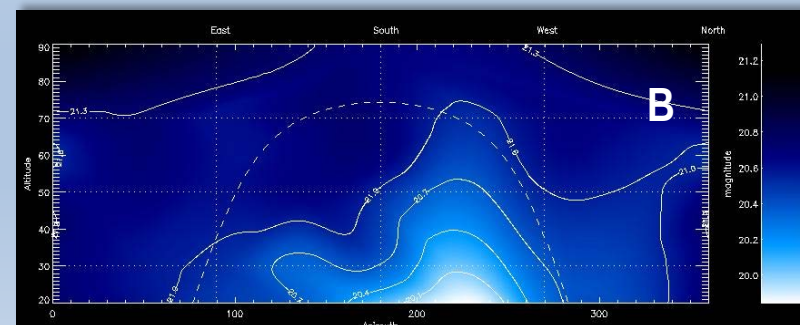
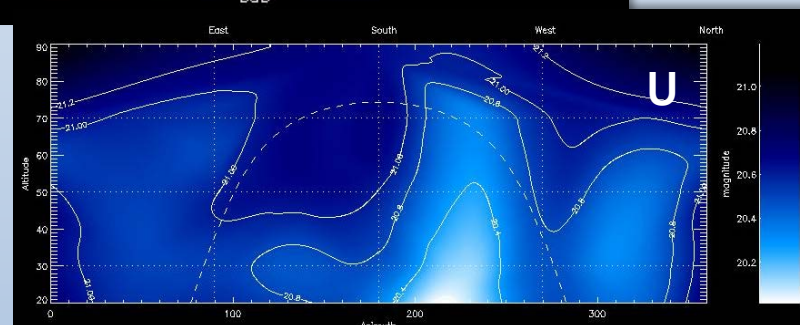
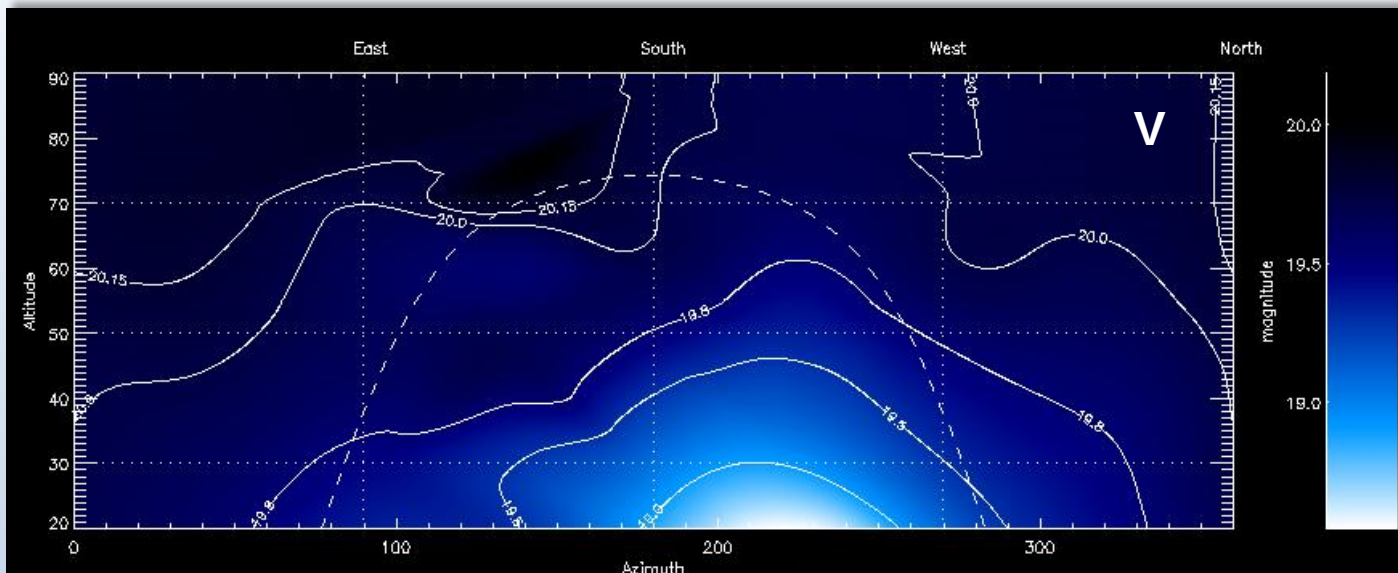
Serra La Nave (Mt. Etna)

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Night Sky Background @ Serra la Nave



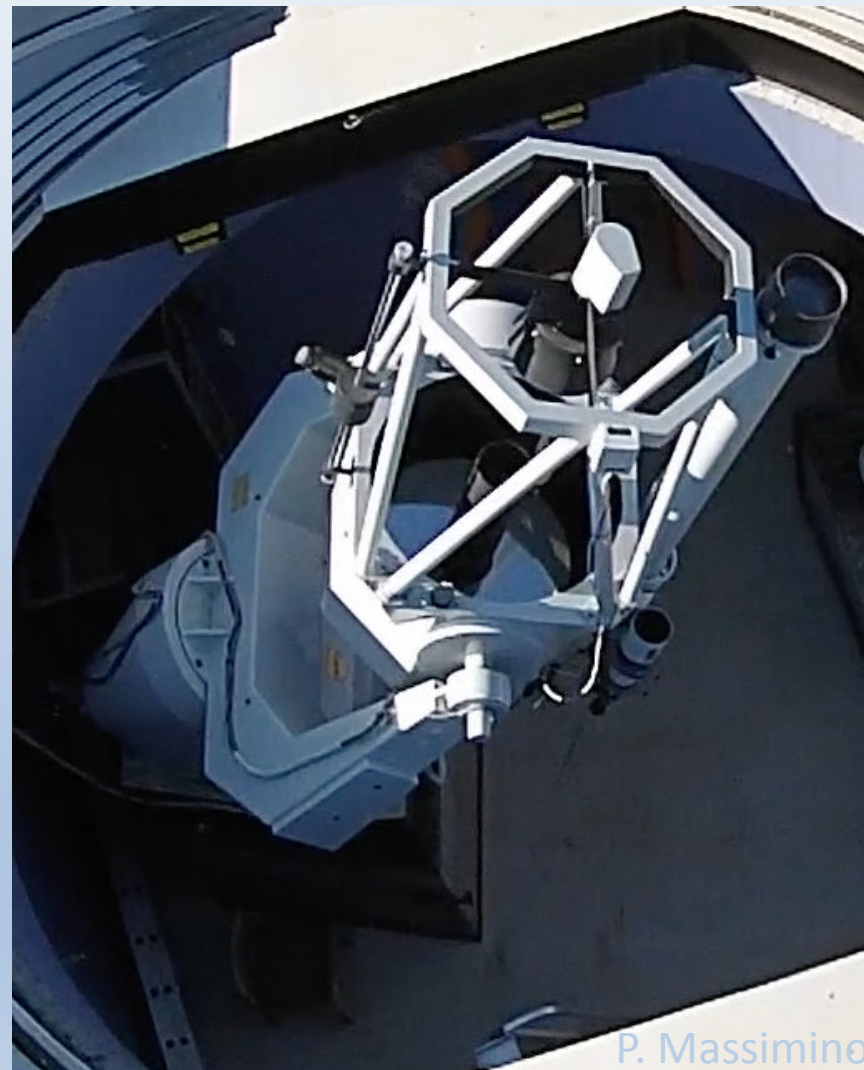
	U	B	V
Min	20.0	19.8	18.5
Max	21.2	21.8	20.2
Zenith	21.1	21.2	20.1

Catanzaro et al., *in preparation*



The APT2 Telescope

- **Ritchey-Chrétien, 80cm, f/8**
- **Fully automated**
 - Checks of local meteo, dome, rain sensor, calibration images (twilight flats), autoguide.
- **Pointing speed:** $0.75 \text{ deg sec}^{-1}$.
- **Focal plane:**
 - Apogee CCD camera (CG240), with a 2K x 2K detector
 - linear scale of $0.47 \text{ arcsec pixel}^{-1}$.
- **FoV:** 16 arcmin.
- **Filters:** UBVRI & neutral

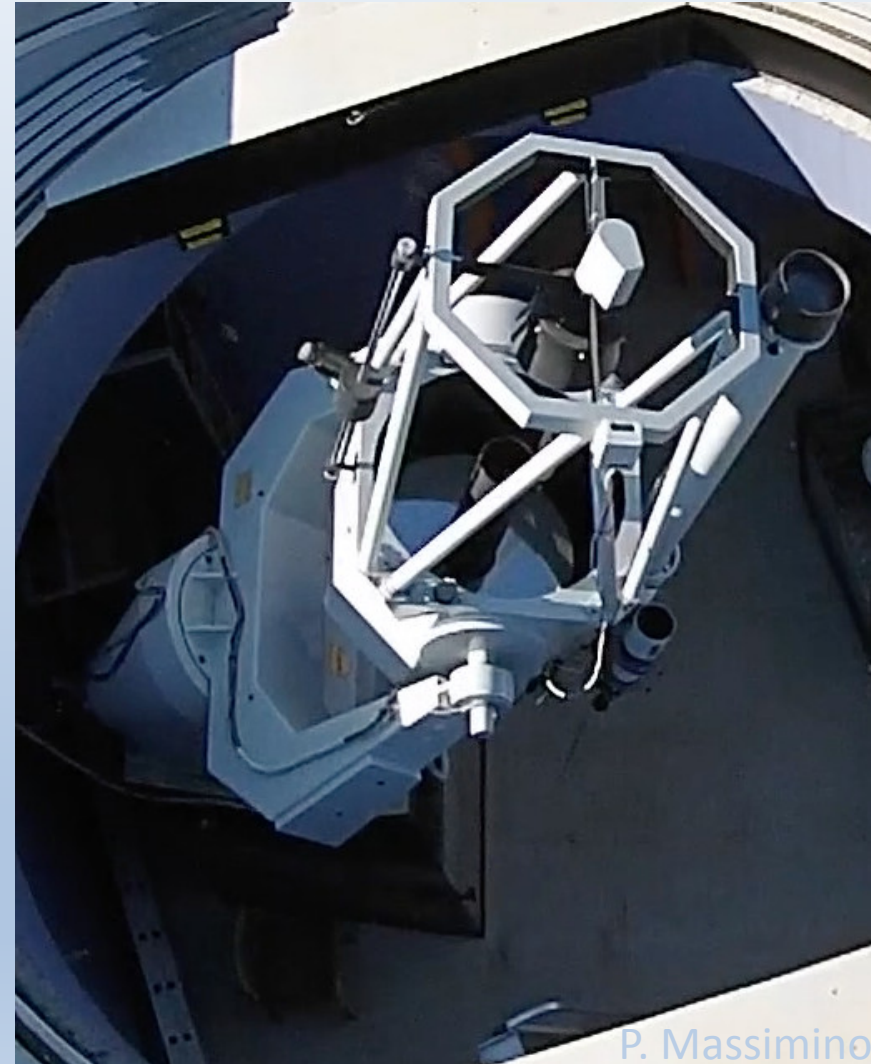


P. Massimino



The APT2 Telescope

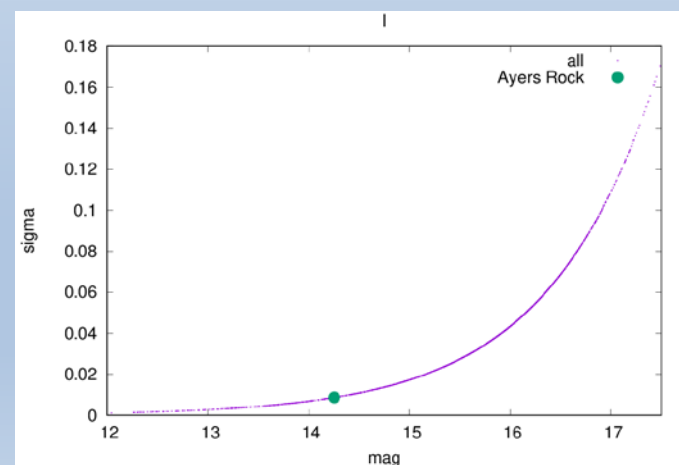
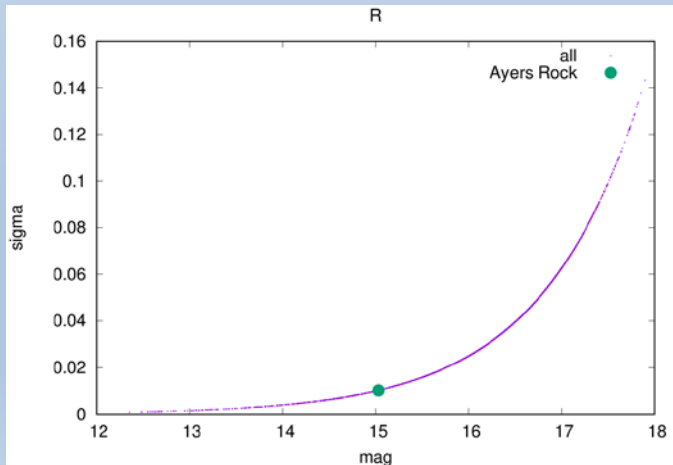
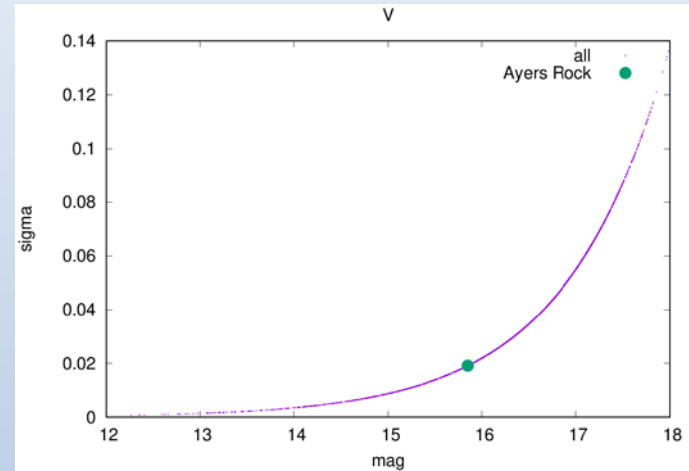
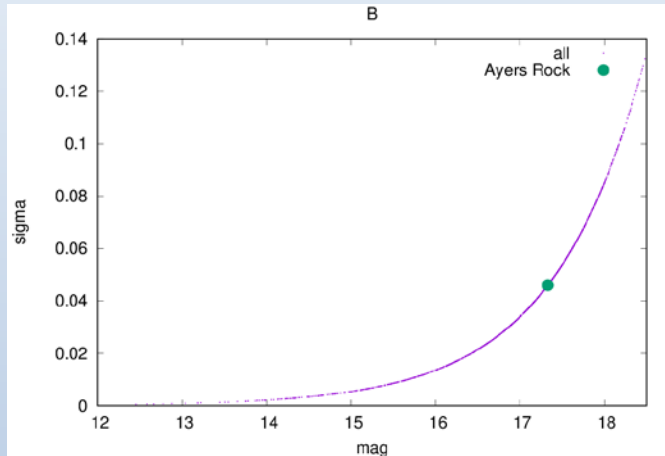
- **Operating modes:**
 - Pre-ingested schedule
 - Local operator
 - Remote operator
- **Data delivery:**
 - Raw and pipeline reduced data with astrometry and aperture photometry.





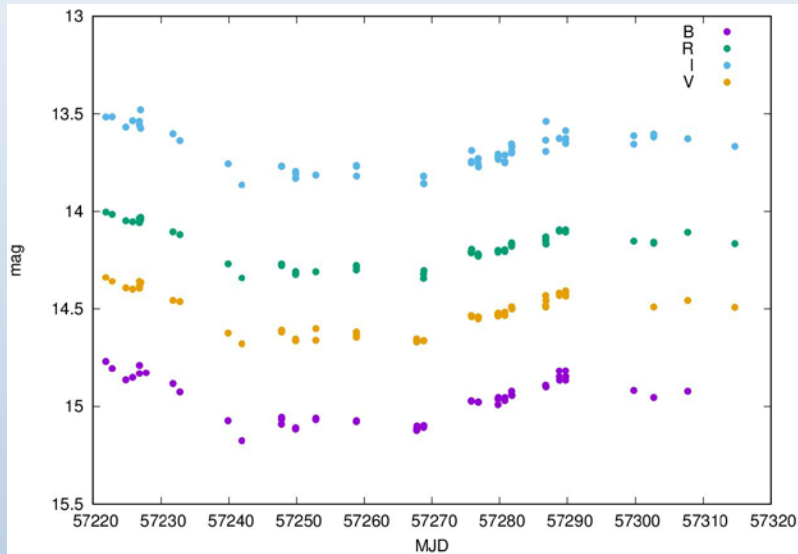
APT2 photometric performance

- [300, 300, 240, 180]s exposure of a in BVRI, respectively.
- Dynamic range ≈ 6 mag.

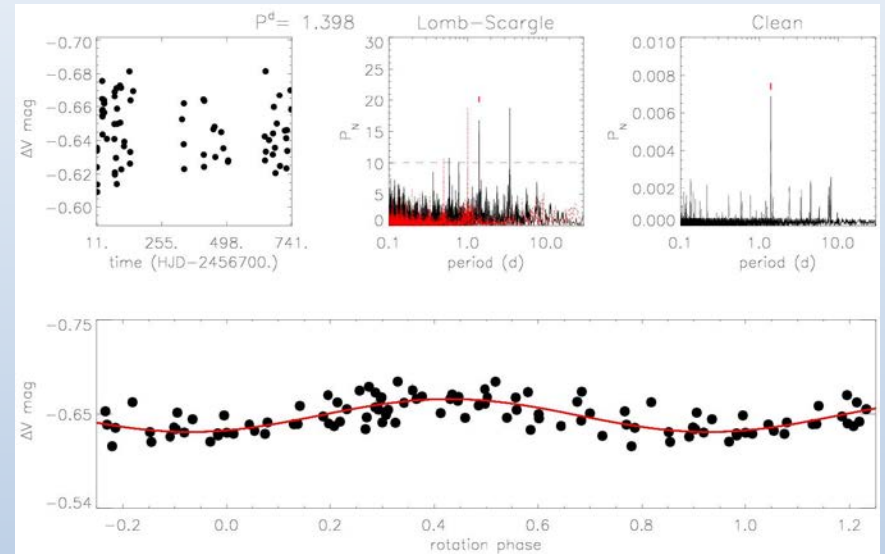




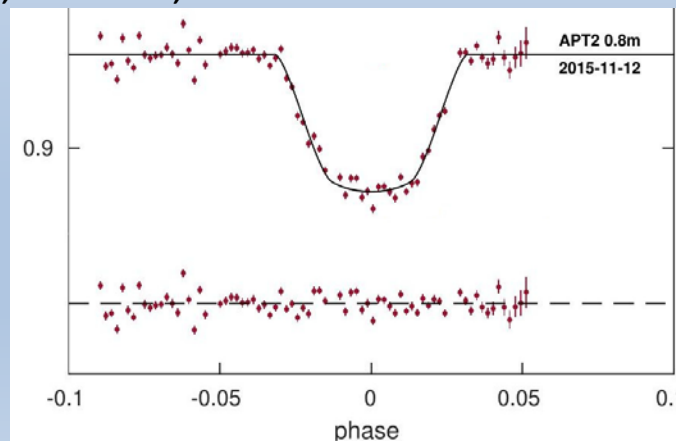
Science with APT2



Raiteri et al, MNRAS, 2017



Messina et al. in preparation

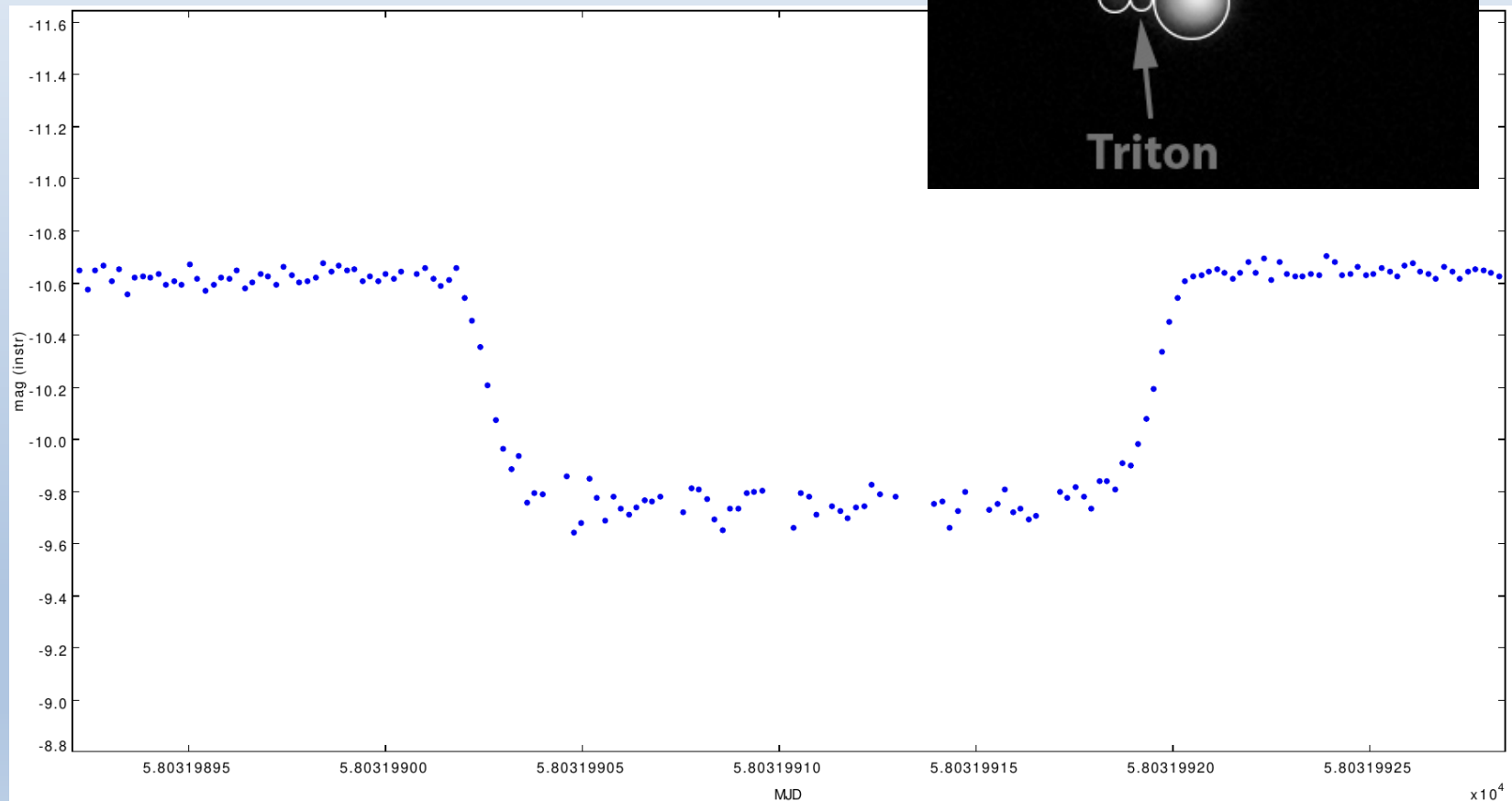
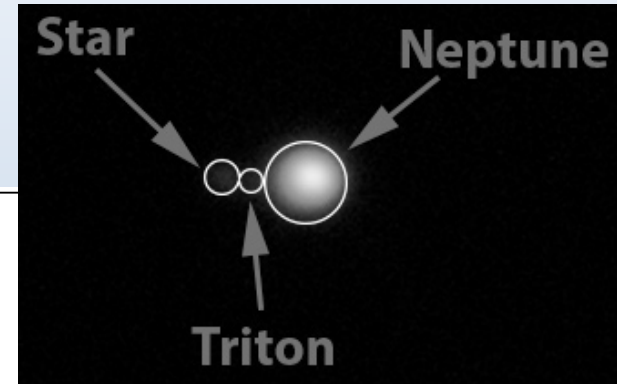


Esposito et al A&A, 2017



Science with APT2

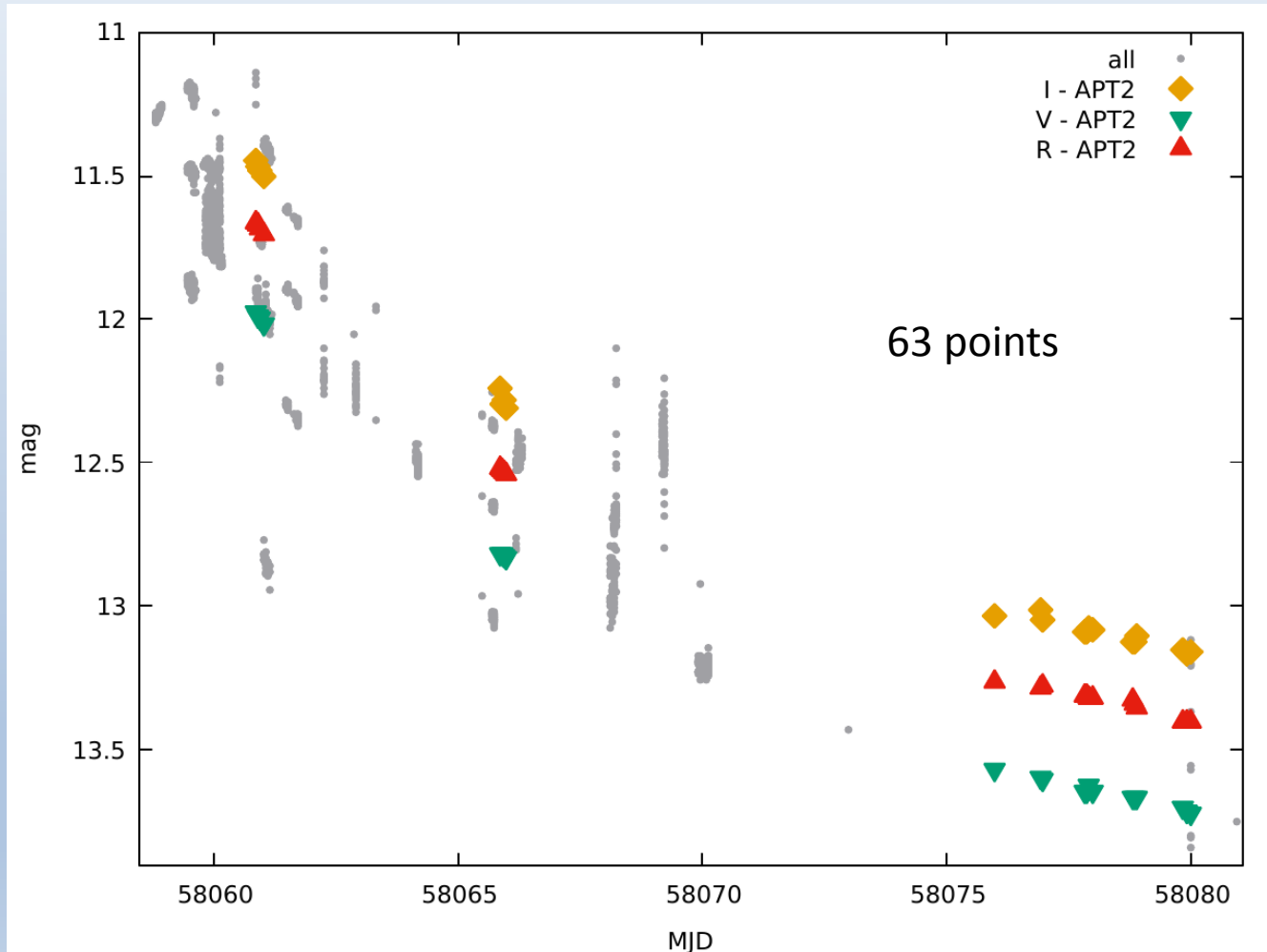
Occultation by Triton





Gaia follow ups

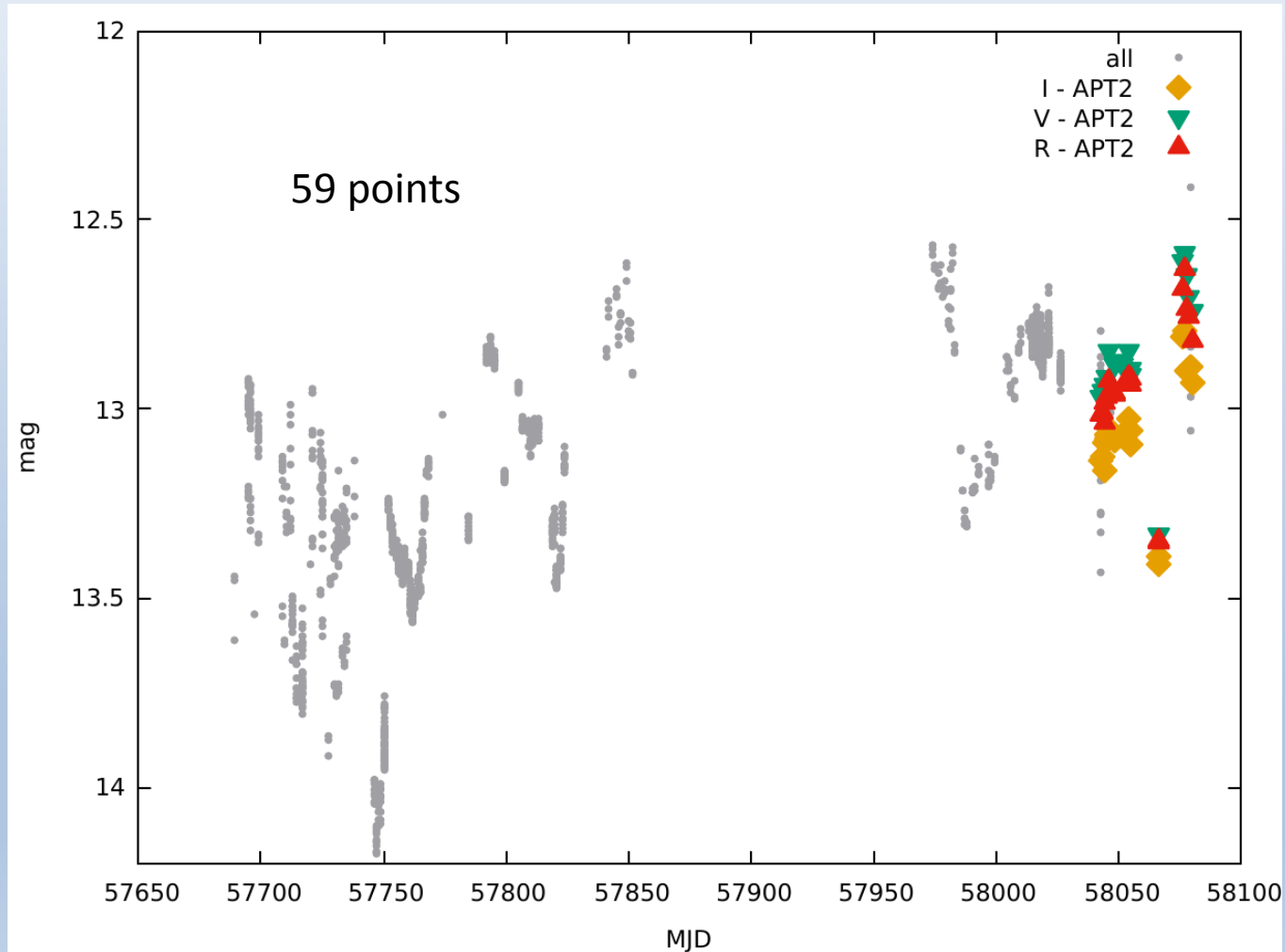
Kojima





Gaia follow ups

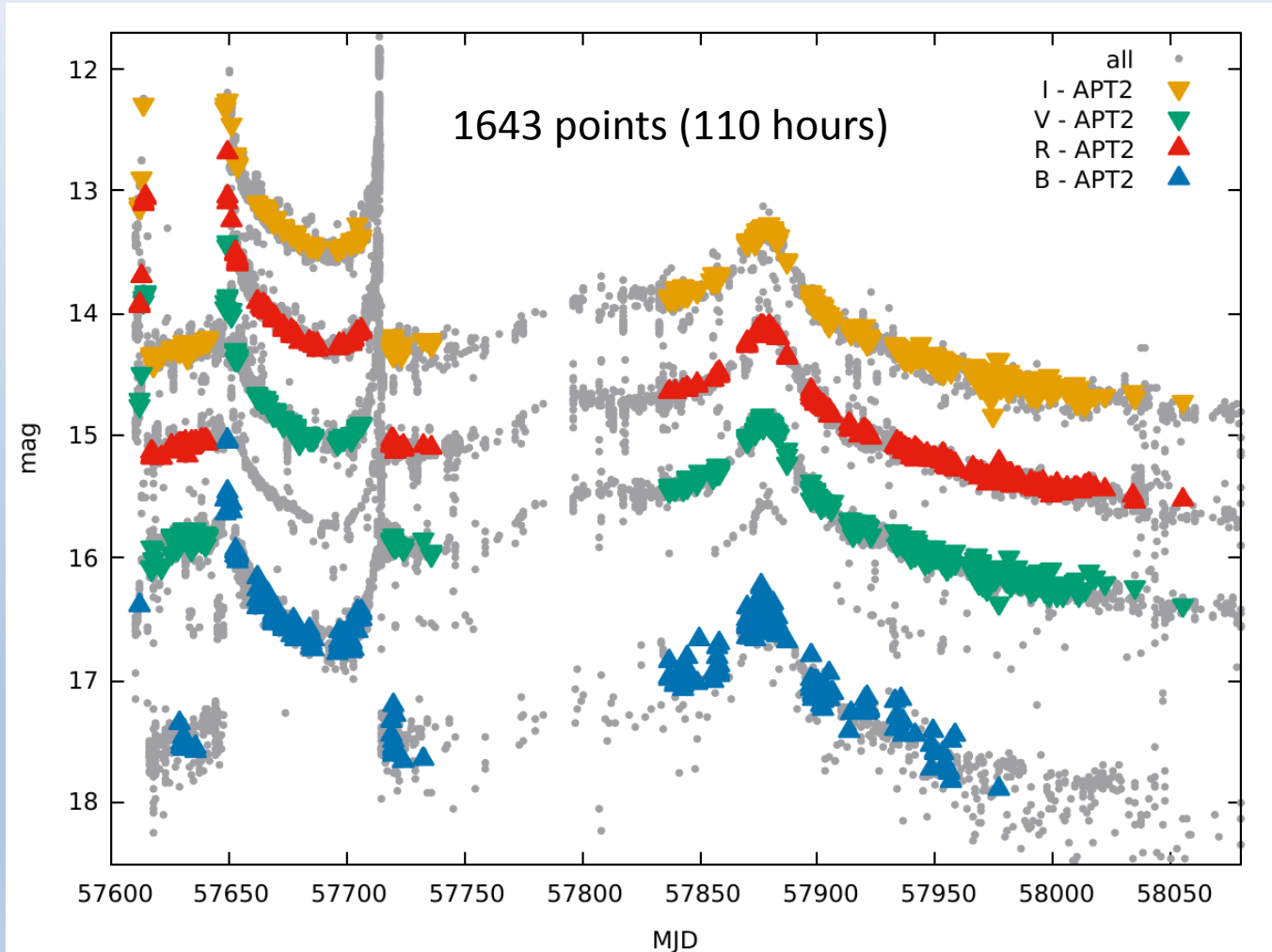
Gaia16bnz





Gaia follow ups

GAIA Ayers Rock





APT2 dome is broken





Conclusions

Robotic telescopes are powerful follow-up machines

Thank you

THE END