Stellar occultation by the Trojan Asteroid (15094) Polymele

Observation Campaign October 1, 2021 in Spain

TWELVE YEARS, EIGHT ASTEROIDS, ONE SPACECRAFT

Lucy's Launch Period Opens

49 DAYS | 19 HOURS | 00 MINUTES | 46 SECONDS

October 16, 2021

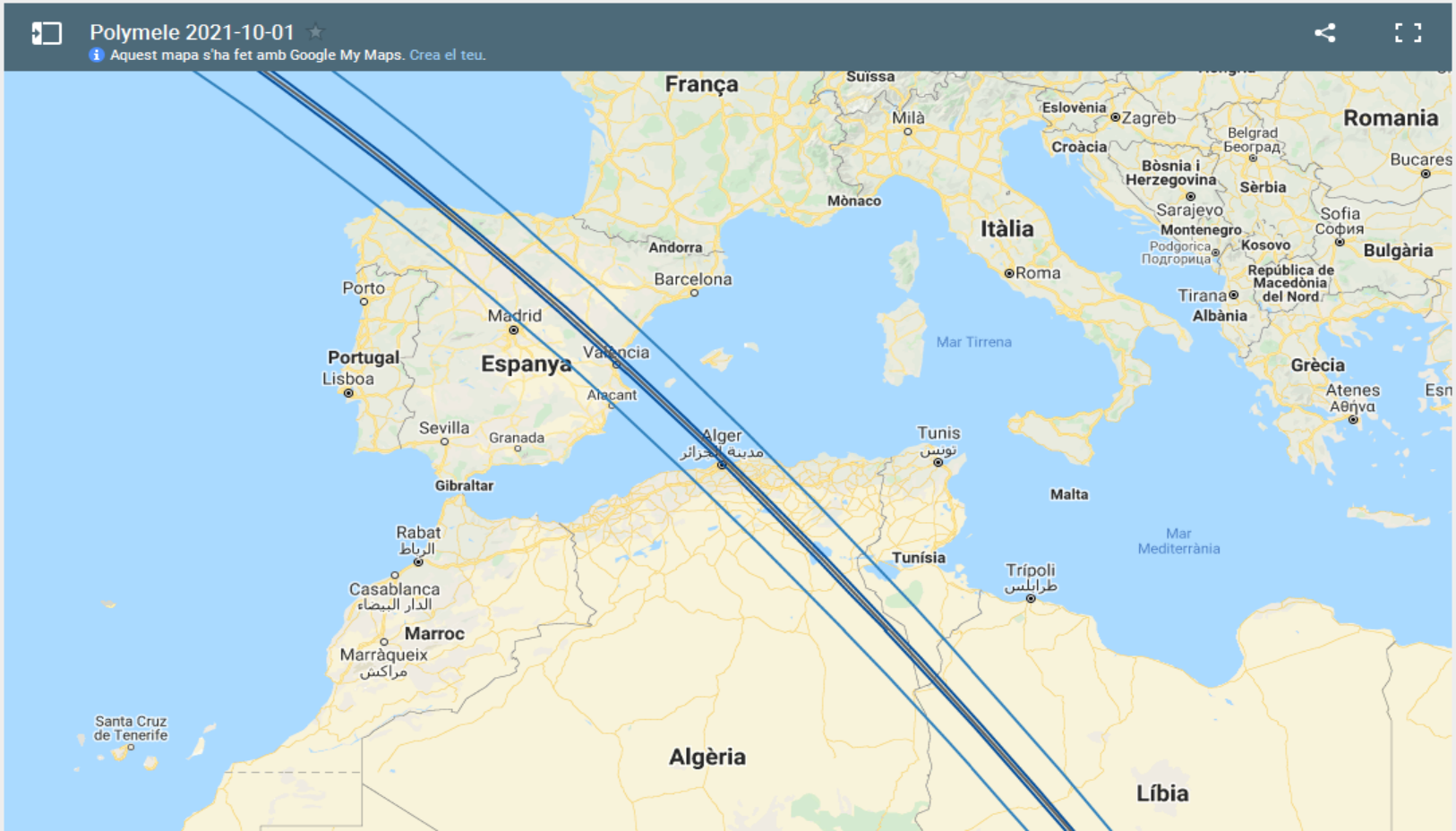
The First Mission to the Trojan Asteroids

http://lucy.swri.edu/occ/20211001Polymele.html

Polymele Occultation 2021-10-01 (G* = 14.6)

The interactive map below shows our current prediction for the stellar occultation by (15094) Polymele on 2021 October 1 UT. The prediction is based on a Gaia DR2 position for the star, corrected for parallax and proper motion, and the v20200923194353 orbit estimate for Polymele, which has a 1-sigma cross-track uncertainty of 31.9 km.

Geocentric mid-time of the event is 02:21:27 UT. Star position is RA 04:21:15.8, Dec +23:13:24 (J2000), and its magnitude is 15.57. Polymele is moving at 4 km/s with respect to the star and its diameter is estimated to be 21 km, so central chords are expected to last 5.0 seconds.

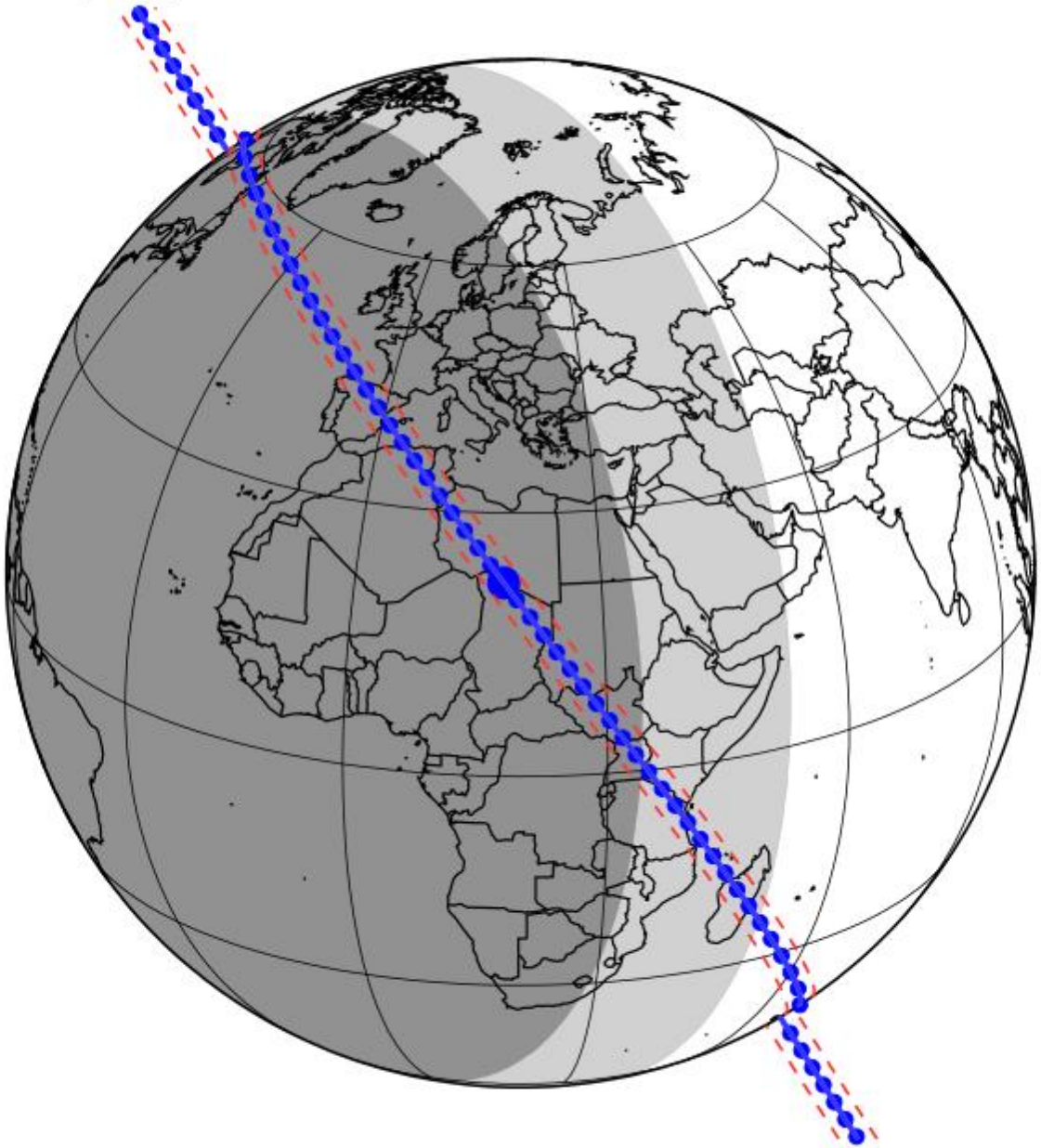


https://lesia.obspm.fr/lucky-star/occ.php?p=73577

Polymele, GAIADR2+pmGAIADR2, NIMAv2

updated: 2020-09-22 by Lucky Star

Offset: 0.0mas 0.0mas



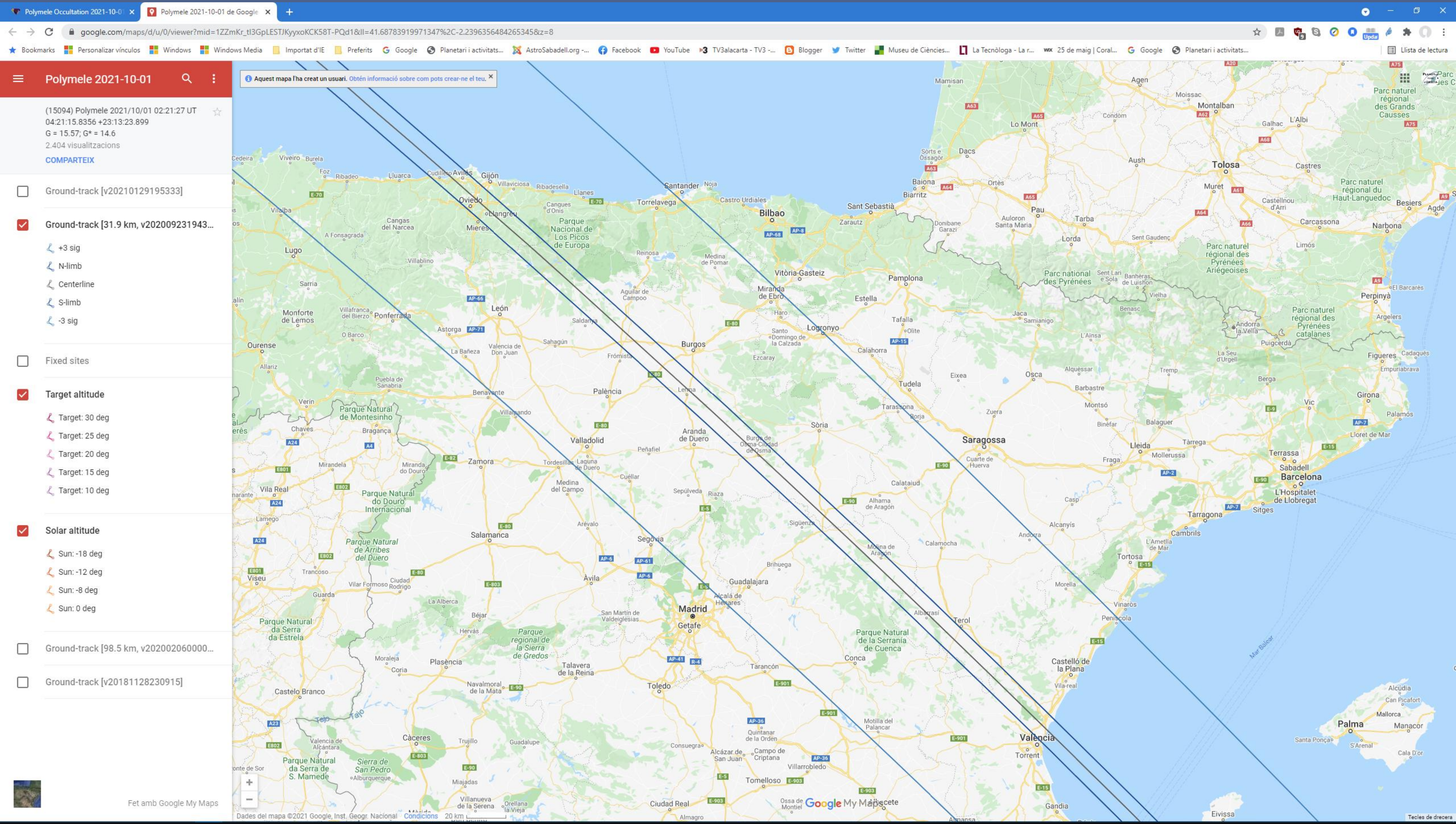
yyyy mm dd hh:mm:ss.s	RA_star_J2000	DE_star_J2000	C/A	P/A	vel	Delta	G*	RP*	H*
2021-10-01 02:21:25.9	04 21 15.8356	+23 13 23.899	0.083	237.39	-4.24	4.0914	13.9	13.1	11.6

Observation campaign co-organized by:

Southwest Research Institute (SwRI), Boulder CO (USA)

and

Institute of Space Sciences and Technologies of Asturias (ICTEA), Spain


Polymele 2021-10-01
Aquest mapa l'ha creat un usuari. Obtén informació sobre com pots crear-ne el teu.
(15094) Polymele 2021/10/01 02:21:27 UT
04:21:15.8356 +23:13:23.899
G = 15.57; G* = 14.6
2.404 visualitzacions
COMPARTEIX
Ground-track [v20210129195333]
Ground-track [31.9 km, v202009231943...
+3 sig
N-limb
Centerline
S-limb
-3 sig
Fixed sites
Target altitude
Target: 30 deg
Target: 25 deg
Target: 20 deg
Target: 15 deg
Target: 10 deg
Solar altitude
Sun: -18 deg
Sun: -12 deg
Sun: -8 deg
Sun: 0 deg
Ground-track [98.5 km, v202002060000...
Ground-track [v20181128230915]
Fet amb Google My Maps
Madrid
Valencia
Saragossa
Barcelona
Bilbao
Tolosa
Palma

Gijón
1st night: Mo, Sep 27
2nd night: Tue, Sep 28
Observation area
3rd night: Wed, Sep 29
4th night: Thu, Sep 30
Avilés
Gijón
Villaviciosa
Oviedo
Llangréu
Mieres
Cangas del Narcea
Llanes
Santander
Torrelavega
Castro Urdiales
Bilbao
Sant Sebastià
Biarritz
Pau
Parque Nacional de Los Picos de Europa
Reinosa
Medina de Pomar
Vitòria-Gasteiz
Pamplona
Miranda de Ebro
Estella
Aguilar de Campoo
León
Ponferrada
Astorga
Sahagún
Burgos
Logronyo
Tafalla
Palència
Lerma
Benavente
Valladolid
Aranda de Duero
Sòria
Saragossa
Zamora
Peñafiel
Tordesillas
Medina del Campo
Cuéllar
Sepúlveda
Calataiud
Salamanca
Segovia
Sigüenza
Àvila
Guadalajara
Madrid
Getafe
Alcalá de Henares
Terol

Observers wanting to join:

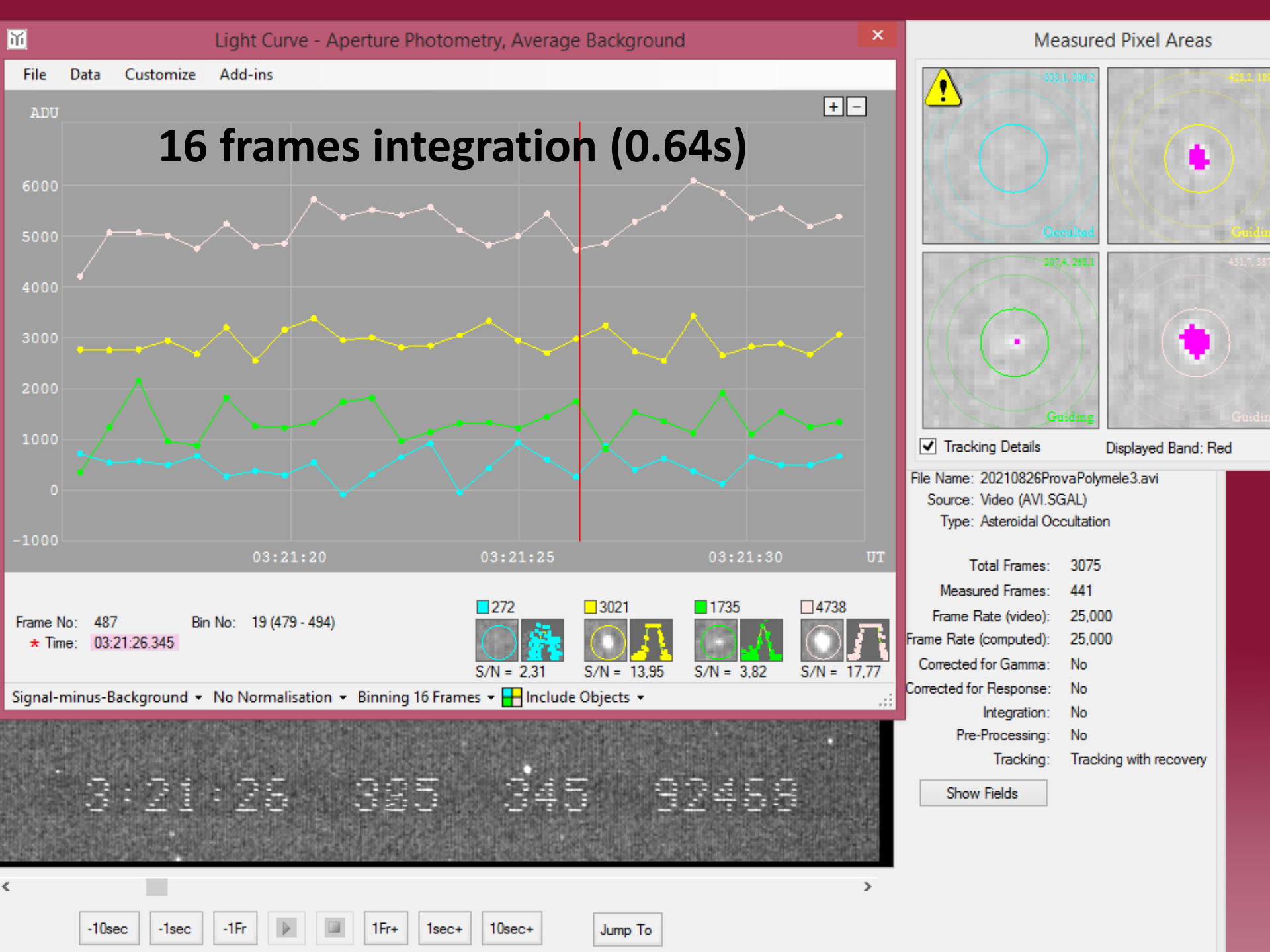
The presented four days scheme

or

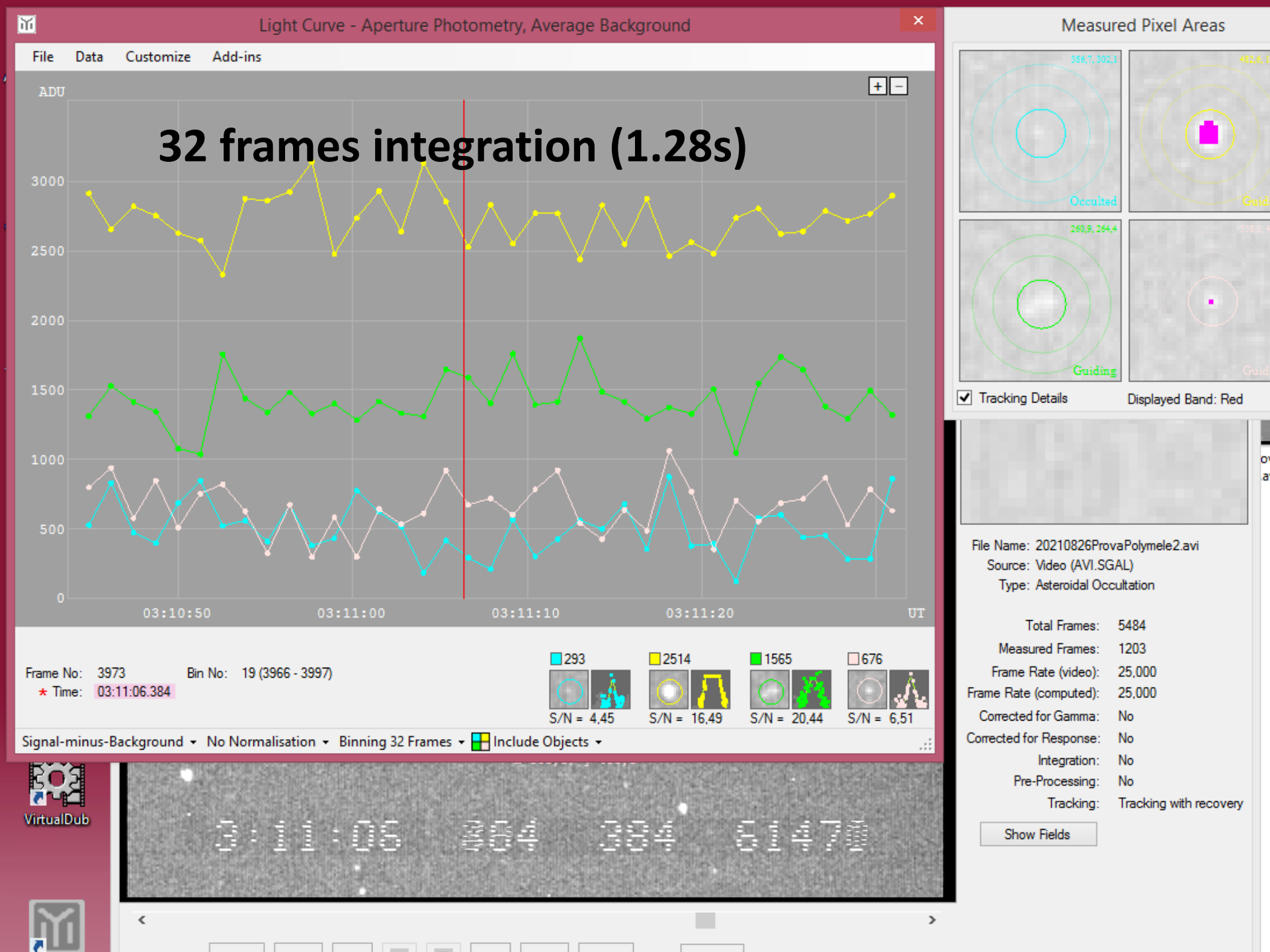
Alternative options

contact me:

presidencia@astrosabadell.org


Light Curve - Aperture Photometry, Average Background
File
Data
Customize
Add-ins
ADU
16 frames integration (0.64s)
6000
5000
4000
3000
2000
1000
0
−1000
03:21:20
03:21:25
03:21:30
UT
Frame No: 487
Bin No: 19 (479 - 494)
* Time: 03:21:26.345
272
S/N = 2,31
3021
S/N = 13,95
1735
S/N = 3,82
4738
S/N = 17,77
Signal-minus-Background
No Normalisation
Binning 16 Frames
Include Objects
Measured Pixel Areas
Occulted
Guiding
Tracking Details
Displayed Band: Red
File Name: 20210826ProvaPolymele3.avi
Source: Video (AVI.SGAL)
Type: Asteroidal Occultation
Total Frames: 3075
Measured Frames: 441
Frame Rate (video): 25,000
Frame Rate (computed): 25,000
Corrected for Gamma: No
Corrected for Response: No
Integration: No
Pre-Processing: No
Tracking: Tracking with recovery
Show Fields
-10sec
-1sec
-1Fr
1Fr+
1sec+
10sec+
Jump To


Light Curve - Aperture Photometry, Average Background
File
Data
Customize
Add-ins
ADU
75K
50K
25K
0
-25000
03:22:10
03:22:15
03:22:20
03:22:25
03:22:30
03:22:35
03:22:40
UT
.aav 16 frames integration (0.64s)
Signal-minus-Background
No Normalisation
No Binning
Include Objects
Measured Pixel Areas
Occulted
Guiding
No Guiding
Guiding
Tracking Details
Digital Video
File Name: 20210826ProvaPolymele3.aav
Source: Video (AAV2.16)
Type: Asteroidal Occultation
Total Frames: 62
Measured Frames: 54
Frame Rate (video): 1,563
Frame Rate (computed): 1,562
Corrected for Gamma: No
Corrected for Response: No
Integration: No
Pre-Processing: No
Tracking: Tracking with recovery
Show Fields
-10sec
-1sec
-1Fr
1Fr+
1sec+
10sec+
Jump To
VirtualDub
Tangra


Light Curve - Aperture Photometry, Average Background
File
Data
Customize
Add-ins
ADU
32 frames integration (1.28s)
3000
2500
2000
1500
1000
500
0
03:10:50
03:11:00
03:11:10
03:11:20
UT
Frame No: 3973
Bin No: 19 (3966 - 3997)
* Time: 03:11:06.384
293
S/N = 4,45
2514
S/N = 16,49
1565
S/N = 20,44
676
S/N = 6,51
Signal-minus-Background
No Normalisation
Binning 32 Frames
Include Objects
Measured Pixel Areas
Occulted
Guiding
Tracking Details
Displayed Band: Red
File Name: 20210826ProvaPolymele2.avi
Source: Video (AVI.SGAL)
Type: Asteroidal Occultation
Total Frames: 5484
Measured Frames: 1203
Frame Rate (video): 25,000
Frame Rate (computed): 25,000
Corrected for Gamma: No
Corrected for Response: No
Integration: No
Pre-Processing: No
Tracking: Tracking with recovery
Show Fields
VirtualDub

Thank you for your attention!