

OBSERVING BINARY ASTEROIDS WITH VLT



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Astrometry and Imaging with the VLT, Keszthely, Hungary

90 Antiope

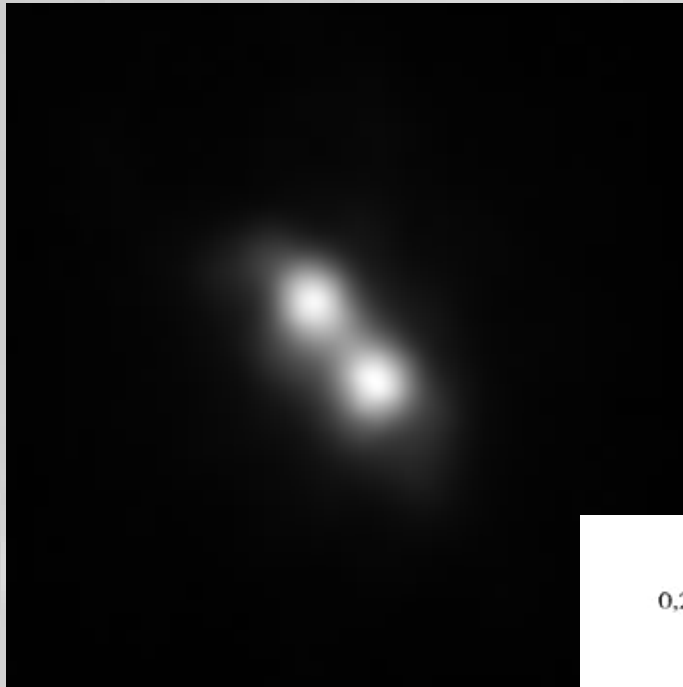
$$d'' = 0.17'' \rightarrow d = 170 \text{ km}$$

$$D_1 = D_2 = 85 \text{ km}$$

$$P_{\text{orb}} = 16.5 \text{ h}$$

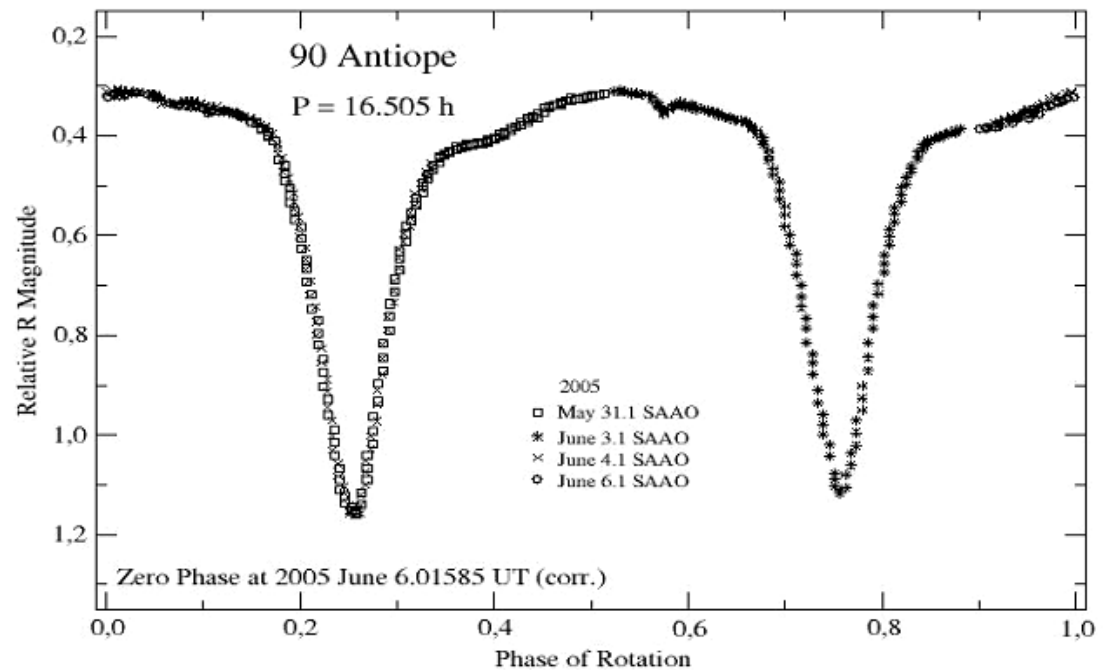
$$M_1 = M_2 = 4.12 \cdot 10^{20} \text{ g}$$

$$\rho = 1.3 \text{ g/cm}^3 \pm 0.4 \text{ g/cm}^3$$



10 August 2000, Keck II

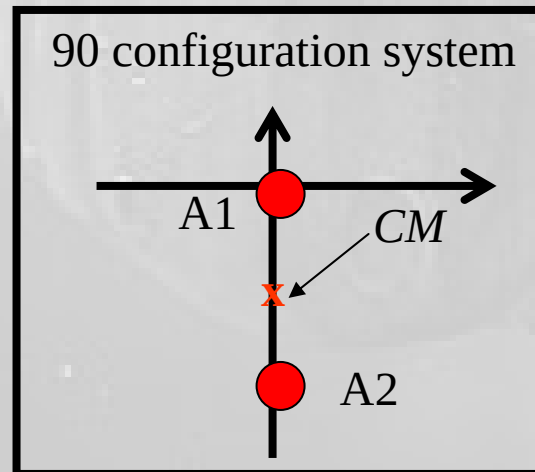
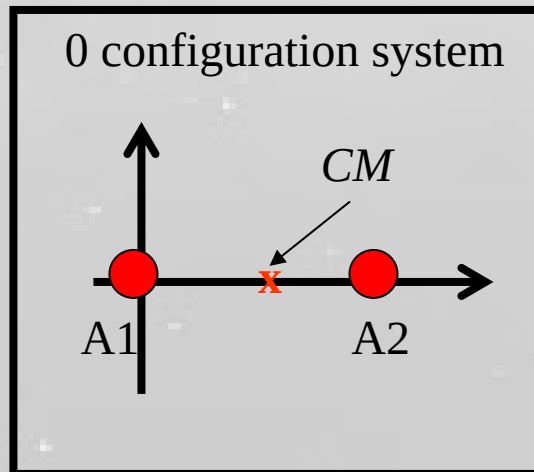
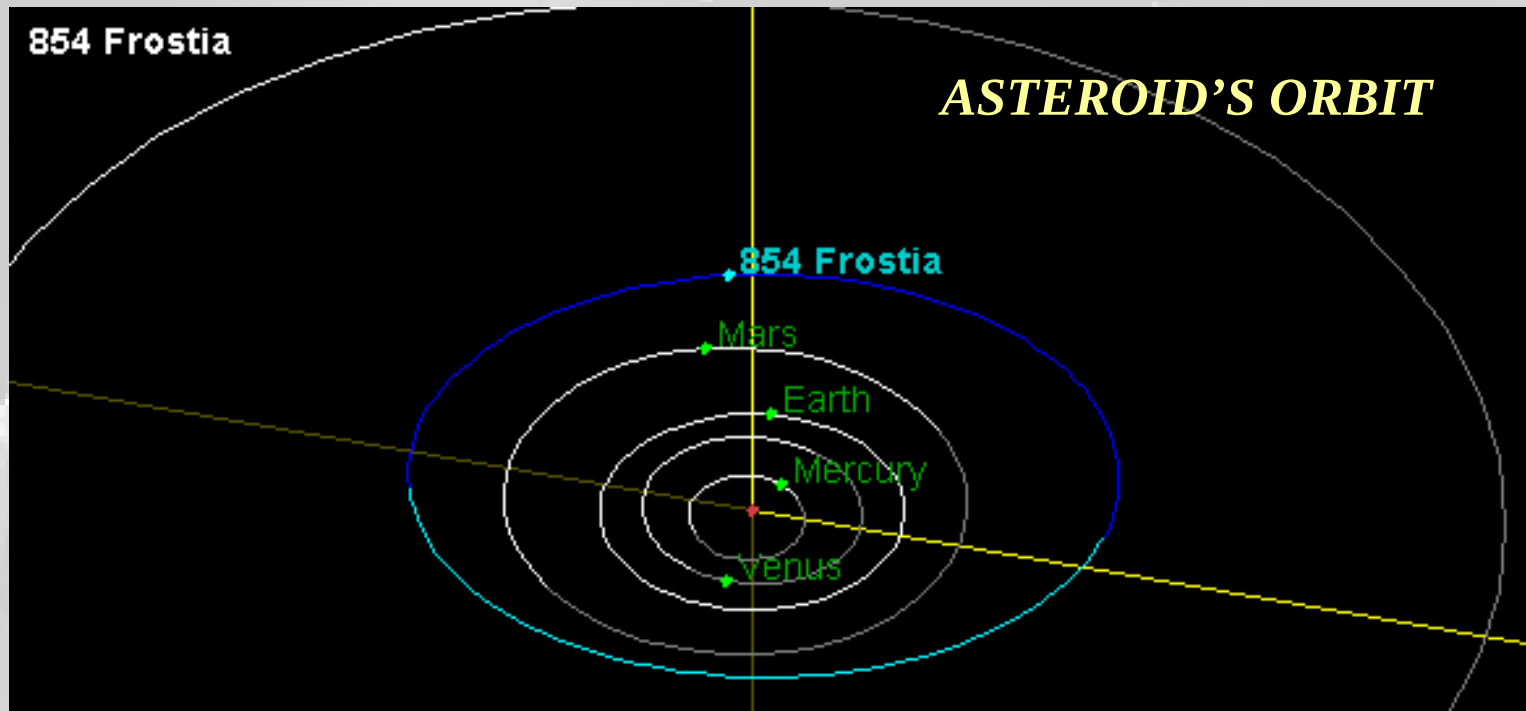
Merline et al.



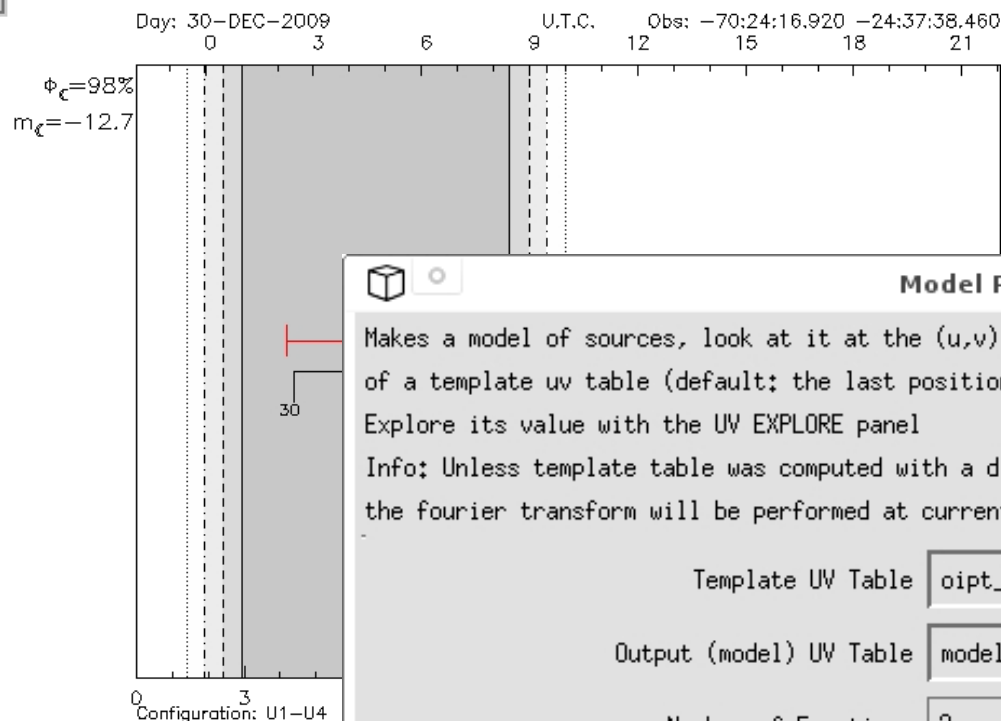
Approximated parameters of binary asteroids

854 Frostia 1313 Berna 1089 Tama

Radius (km):	13	15	11
Distance (a.u.):	2.3686	2.6588	2.2135
Ang. Sep.(arcsec.):	0.1295	0.0102	0.0233
Period (h):	37.711	25.464	16.444
Flux (Jy):	1.1400	1.4136	0.9064



854 Frostia



Model Parameters...

Makes a model of sources, look at it at the (u,v) positions
of a template uv table (default: the last positions obtained with the UV Coverage panel)
Explore its value with the UV EXPLORE panel
Info: Unless template table was computed with a different wavelength,
the fourier transform will be performed at current 10 microns.

Template UV Table

Output (model) UV Table

Number of Functions

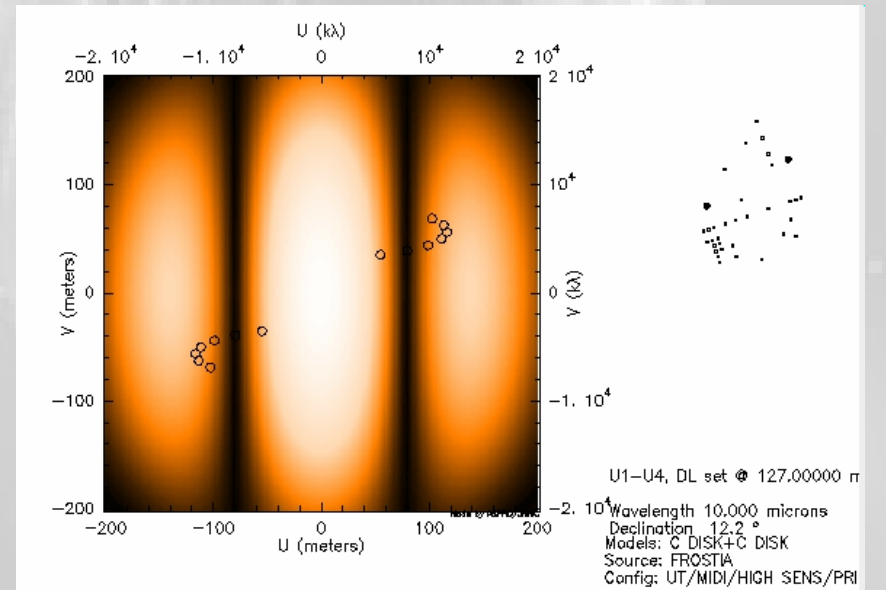
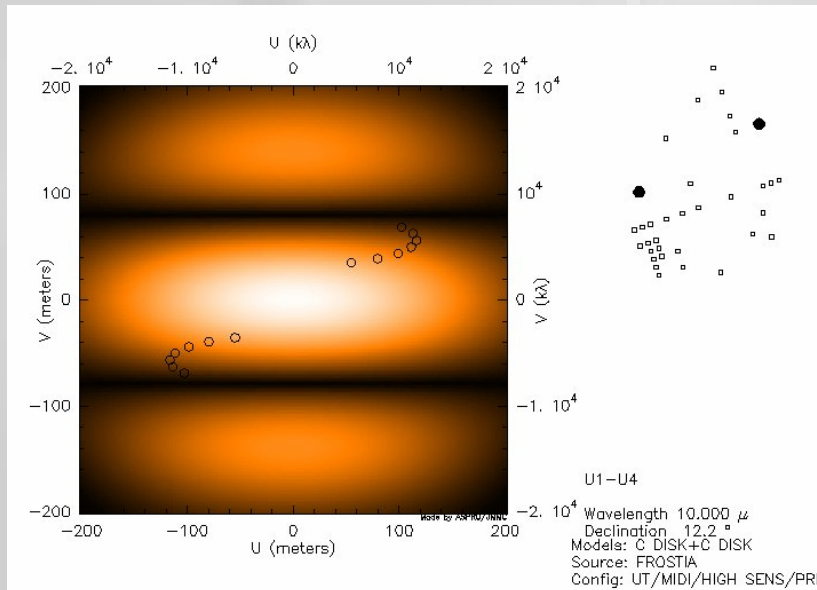
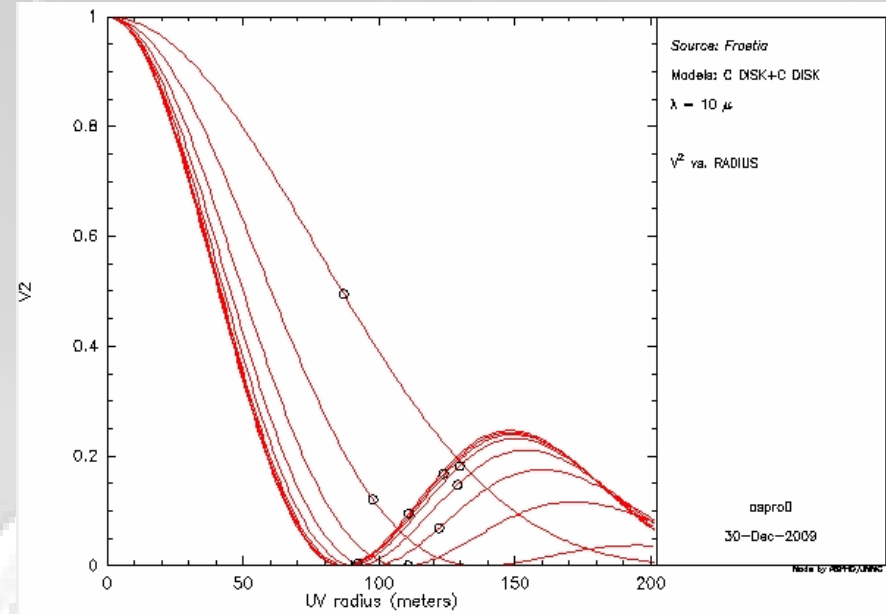
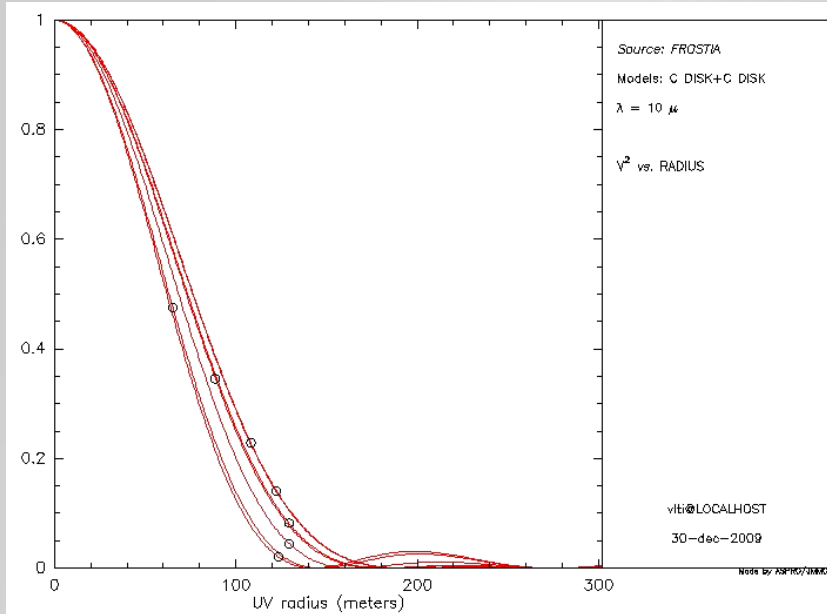
Function 1:

Parameters

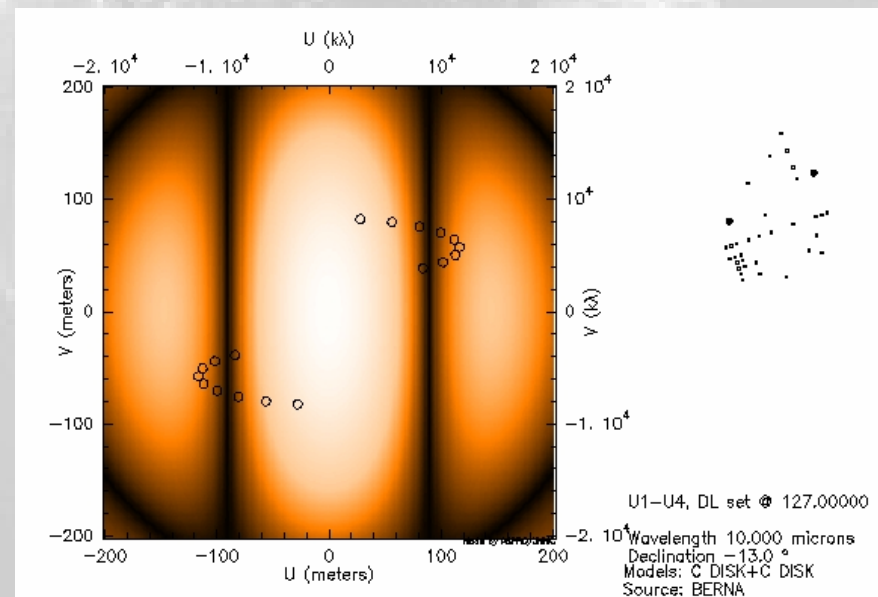
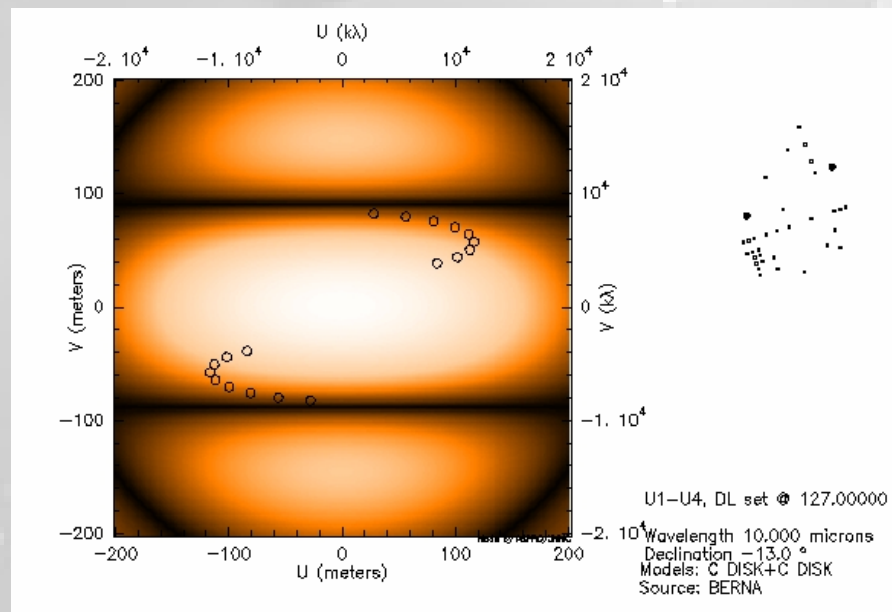
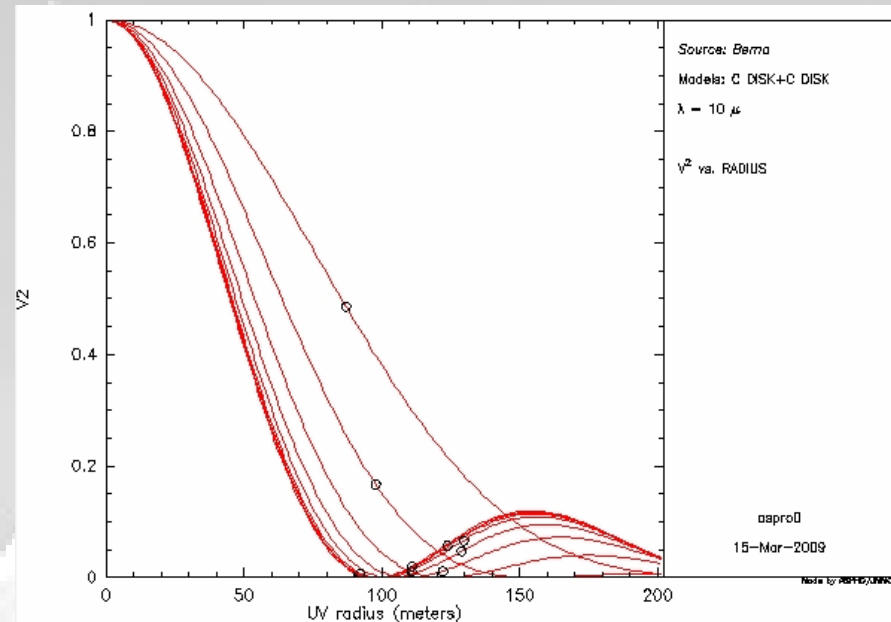
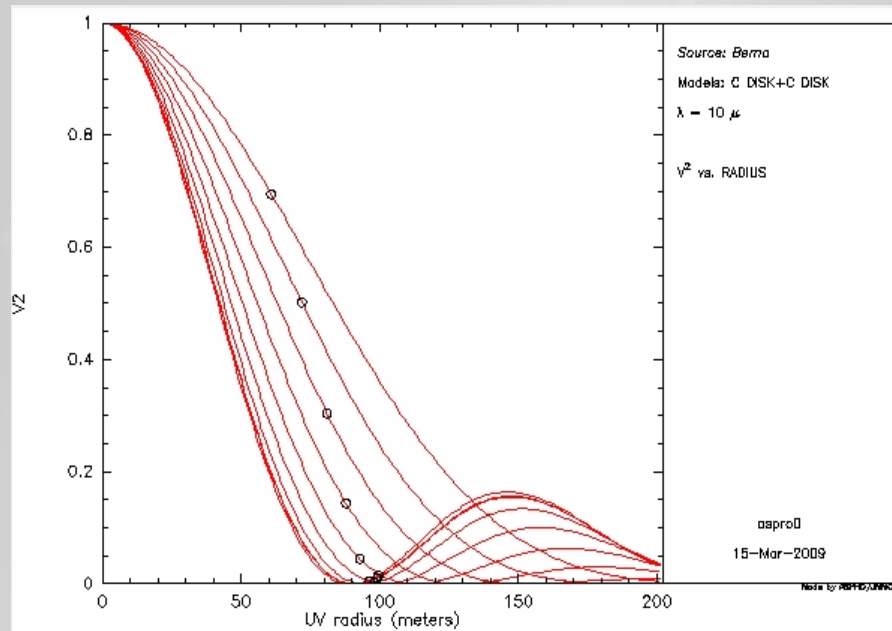
Function 2:

Parameters

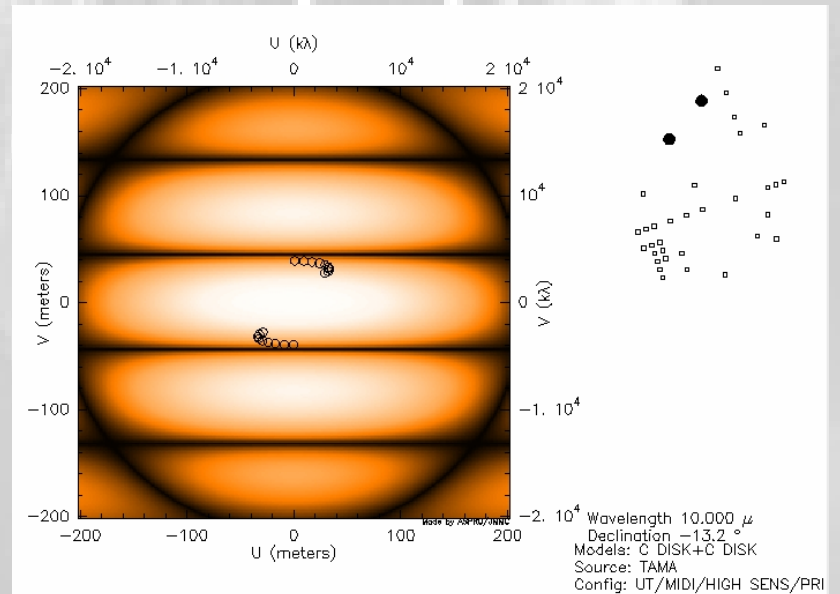
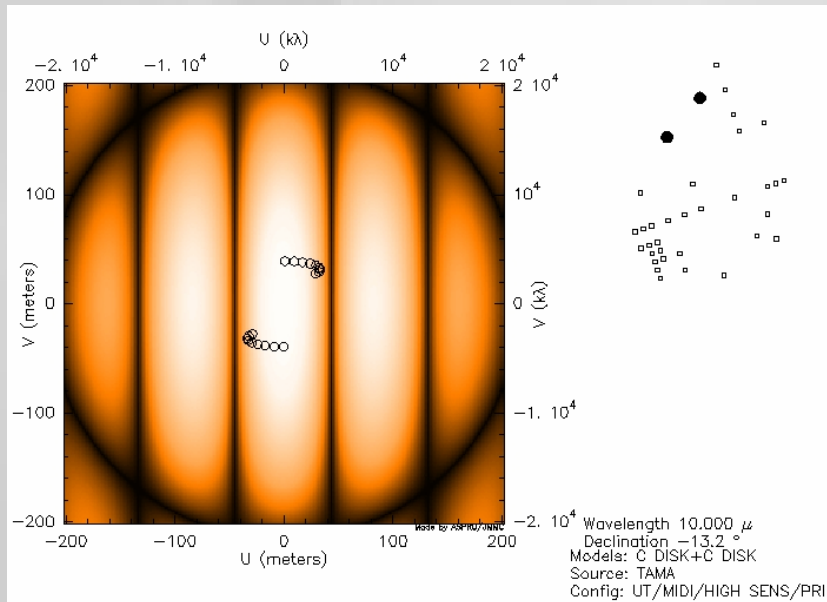
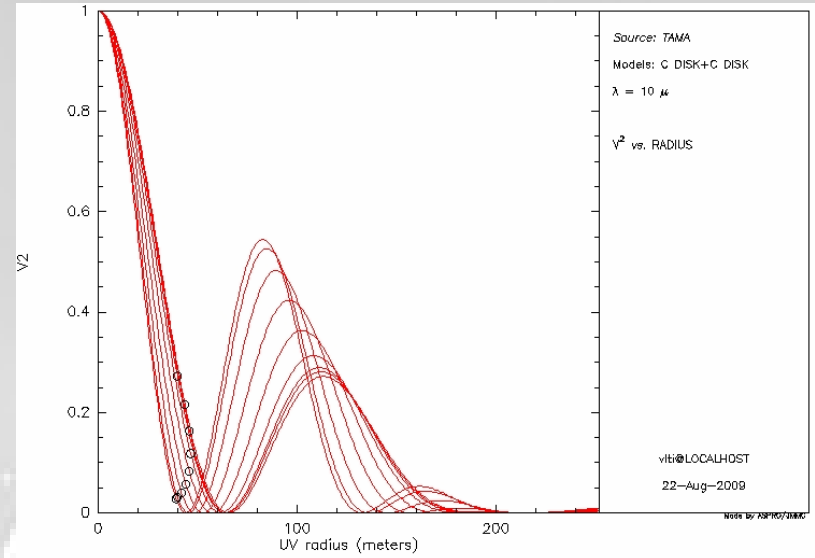
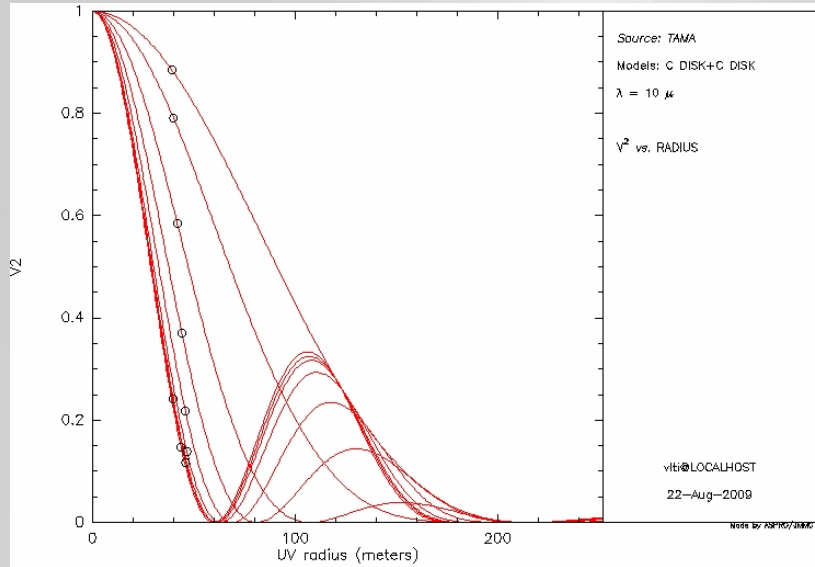
854 Frostia (hd61421)



1313 Berna (hd99363)



1089 Tama (hd219449)





THAT'S ALL
FOLKS!!

