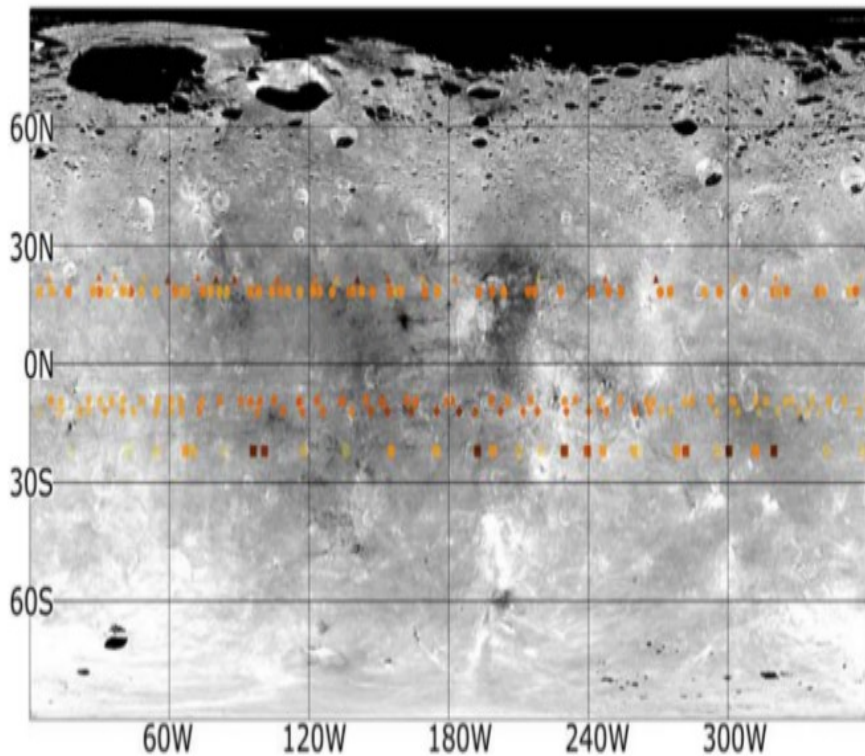
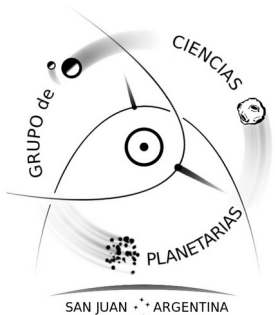


Cambio en las propiedades polarimétricas de asteroides debido a la rotación



(4) Vesta

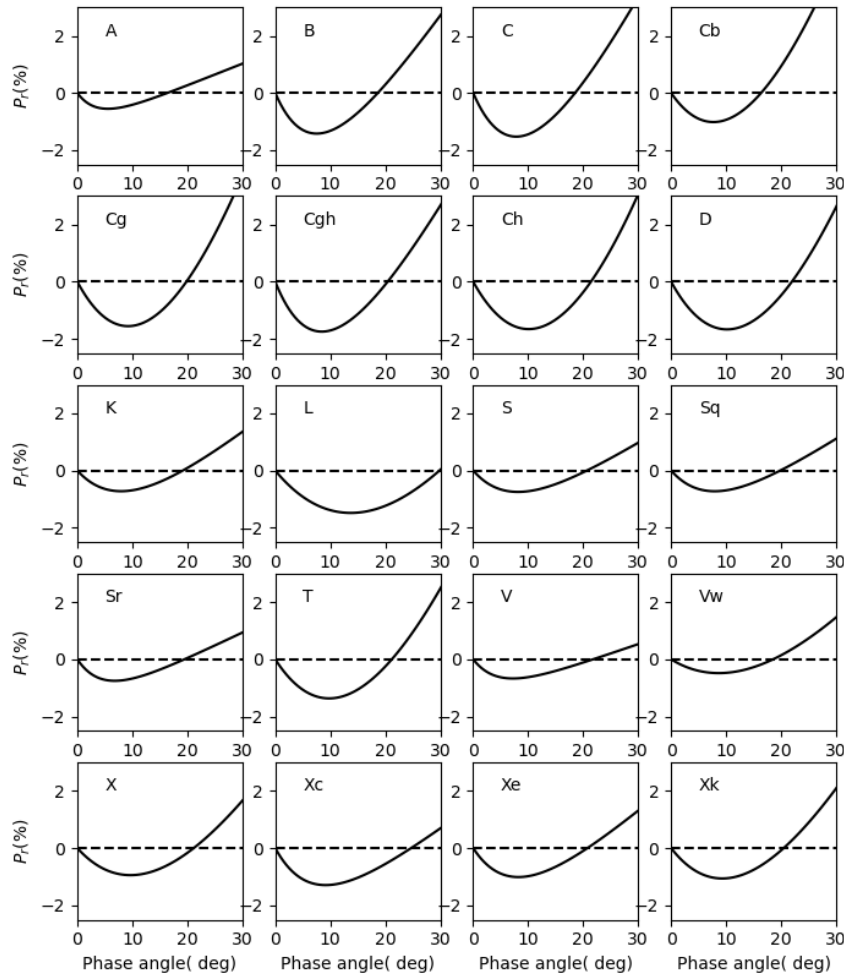


R. Gil-Hutton

Grupo de Ciencias Planetarias, FCFN, UNSJ – CONICET
San Juan - Argentina



Curvas de polarización

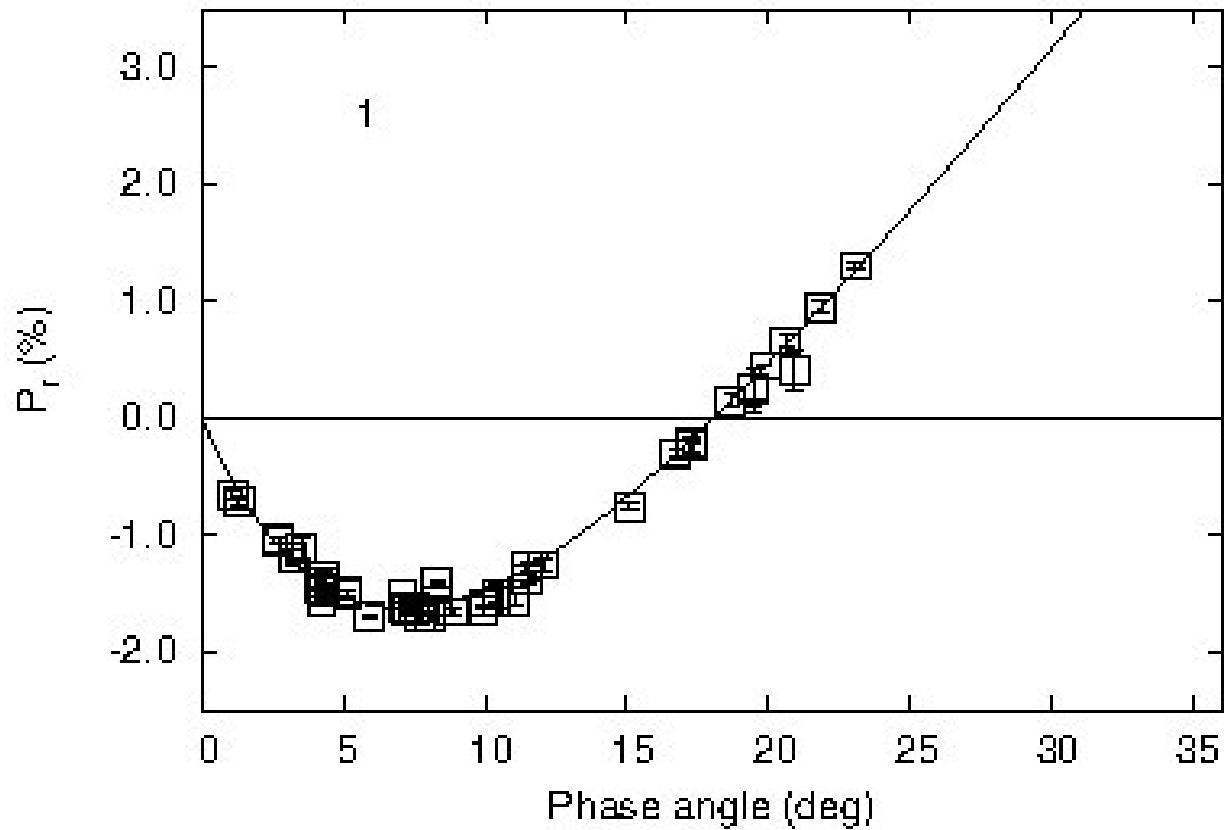


Curvas de polarización para 20 de los 24 tipos taxonómicos de DeMeo et al (2009)

Gil-Hutton (2024)

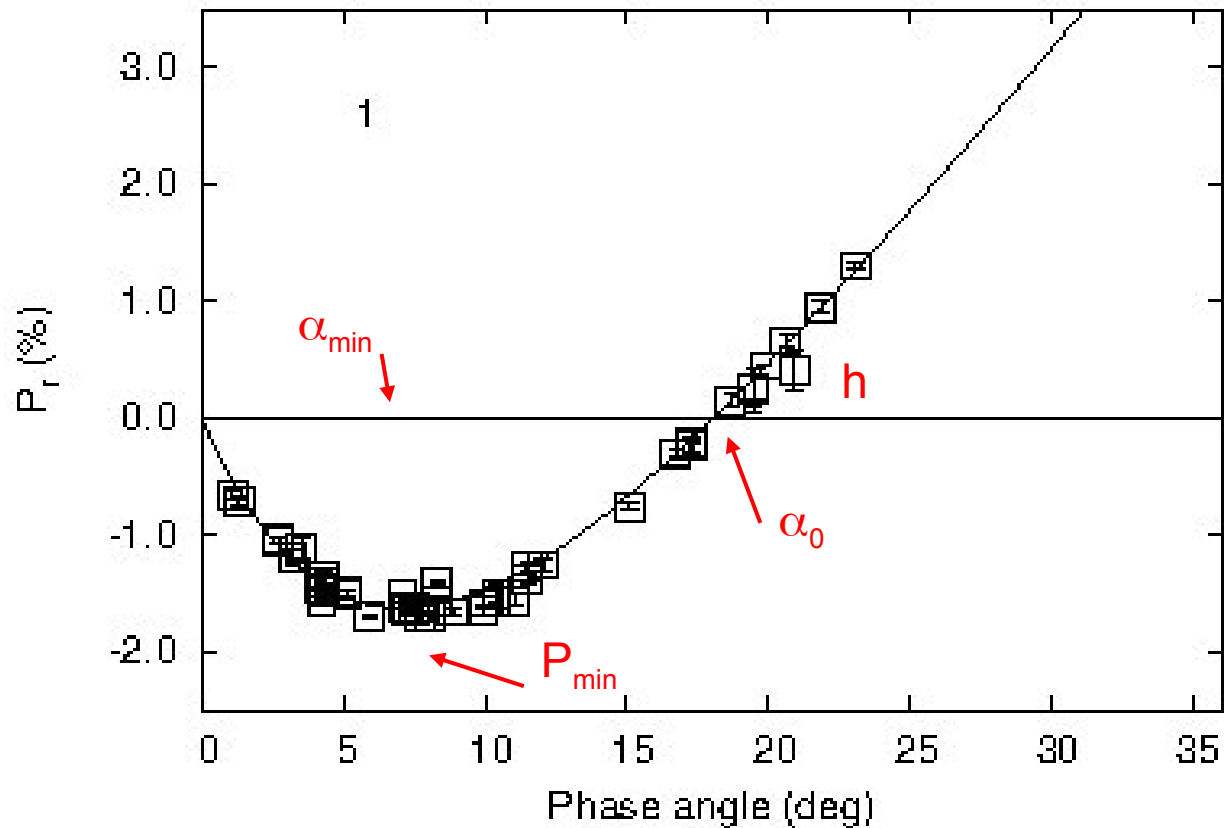
Curvas de polarización

$$P_r = \frac{(I_{\perp} - I_{\parallel})}{(I_{\perp} + I_{\parallel})}$$



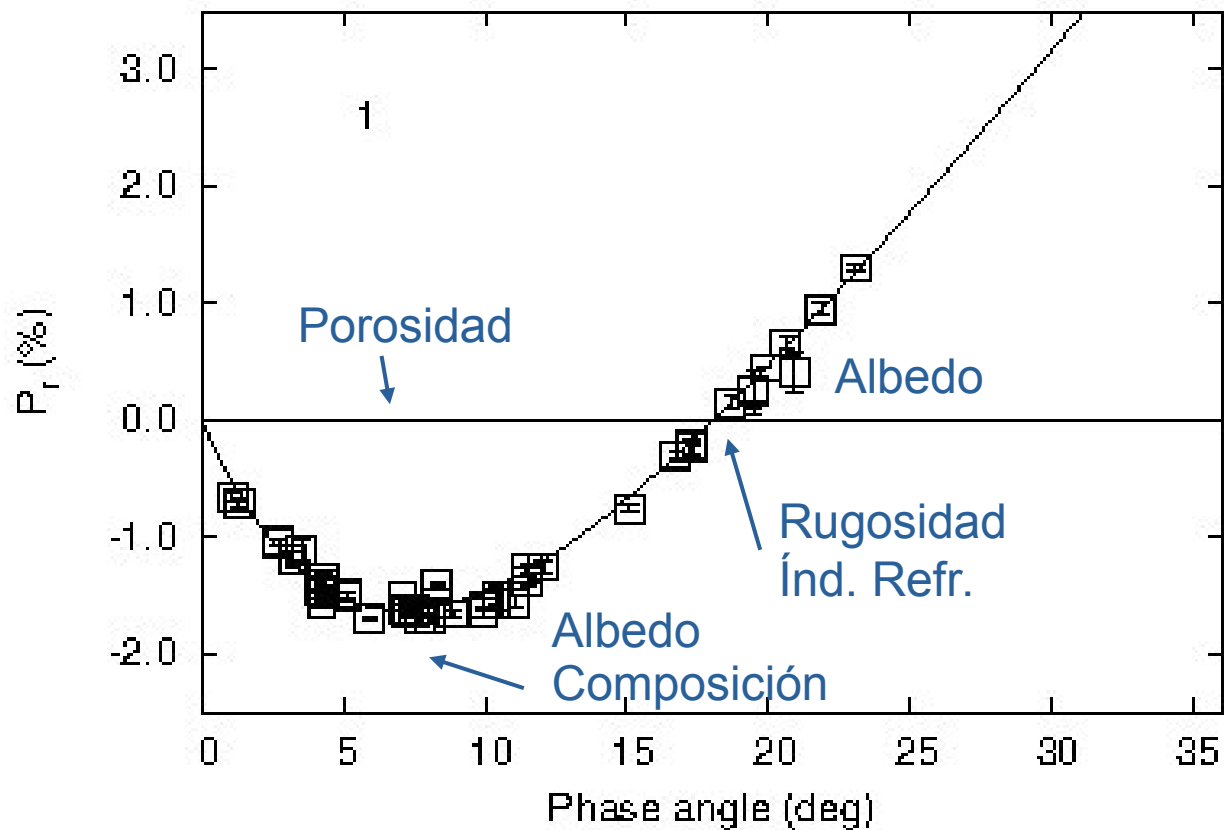
Curvas de polarización

$$P_r = \frac{(I_{\perp} - I_{\parallel})}{(I_{\perp} + I_{\parallel})}$$



Curvas de polarización

$$P_r = \frac{(I_{\perp} - I_{\parallel})}{(I_{\perp} + I_{\parallel})}$$



Catálogo

Grupo de Ciencias Planetarias Planetary Science Group

U.N.S.J - San Juan - Argentina



Principal

Integrantes

Investigación

Enlaces

Catalogue of asteroid polarization curves

Please make reference to: **R. Gil-Hutton (2017) Catalogue of asteroid polarization curves, presented at "Asteroid, Comets, Meteors 2017", Montevideo, Uruguay.**

Please take into account that the catalogue only includes observations made on filters V, R or similar. There are 5 groups:

- **Group A:** Asteroids with at least 5 measurements, excellent phase coverage and a polarization curve.
- **Group B:** Asteroids with at least 4 measurements, good phase coverage and a polarization curve.
- **Group C:** Asteroids with at least 3 measurements, regular phase coverage and a tentative polarization curve.
- **Group D:** Asteroids with at least 3 measurements and bad phase coverage.
- **Group E:** Asteroids with less than 3 measurements.

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Catalogue of asteroid polarization curves

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The catalogue is updated to February, 2023.

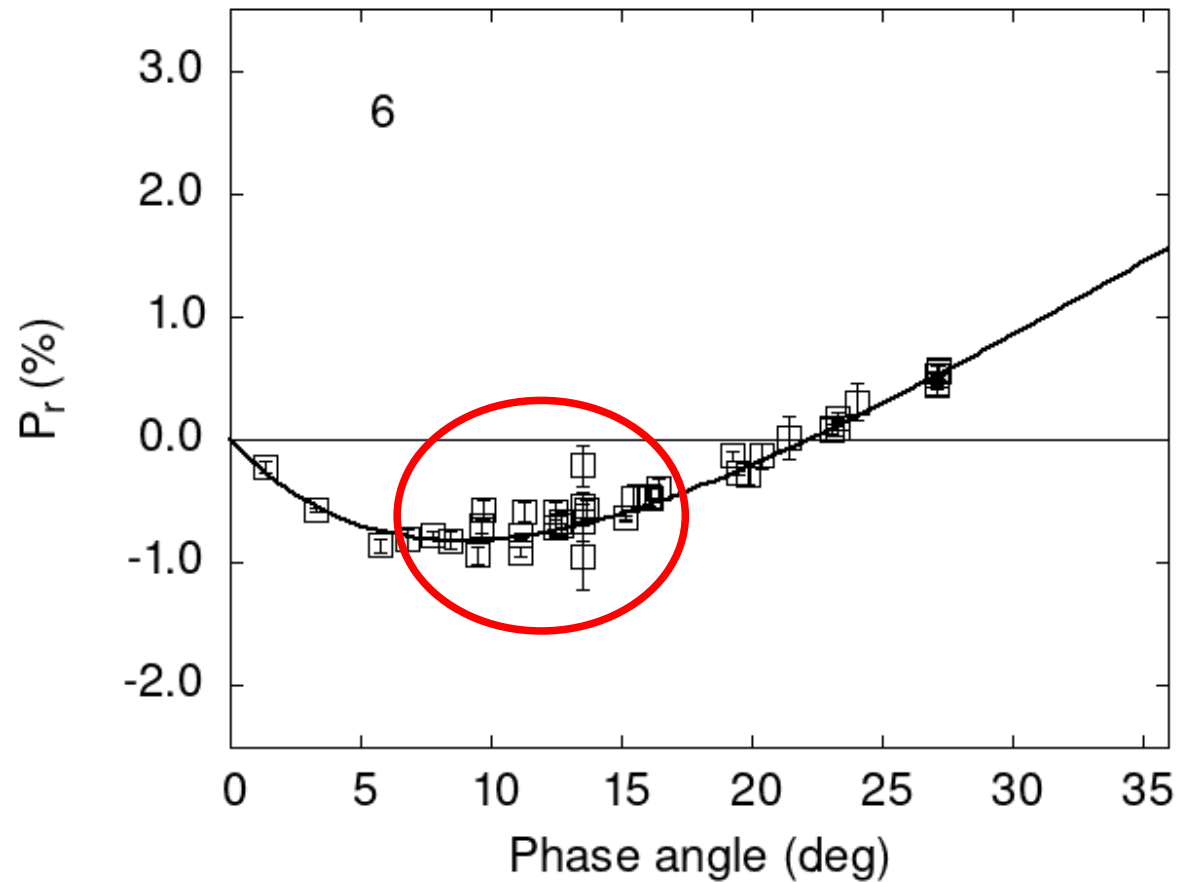
Total number of polarimetric measurements: 6341.

Total number of asteroids with polarization curves: 295.

Total number of asteroids with polarimetric measurements: 795.

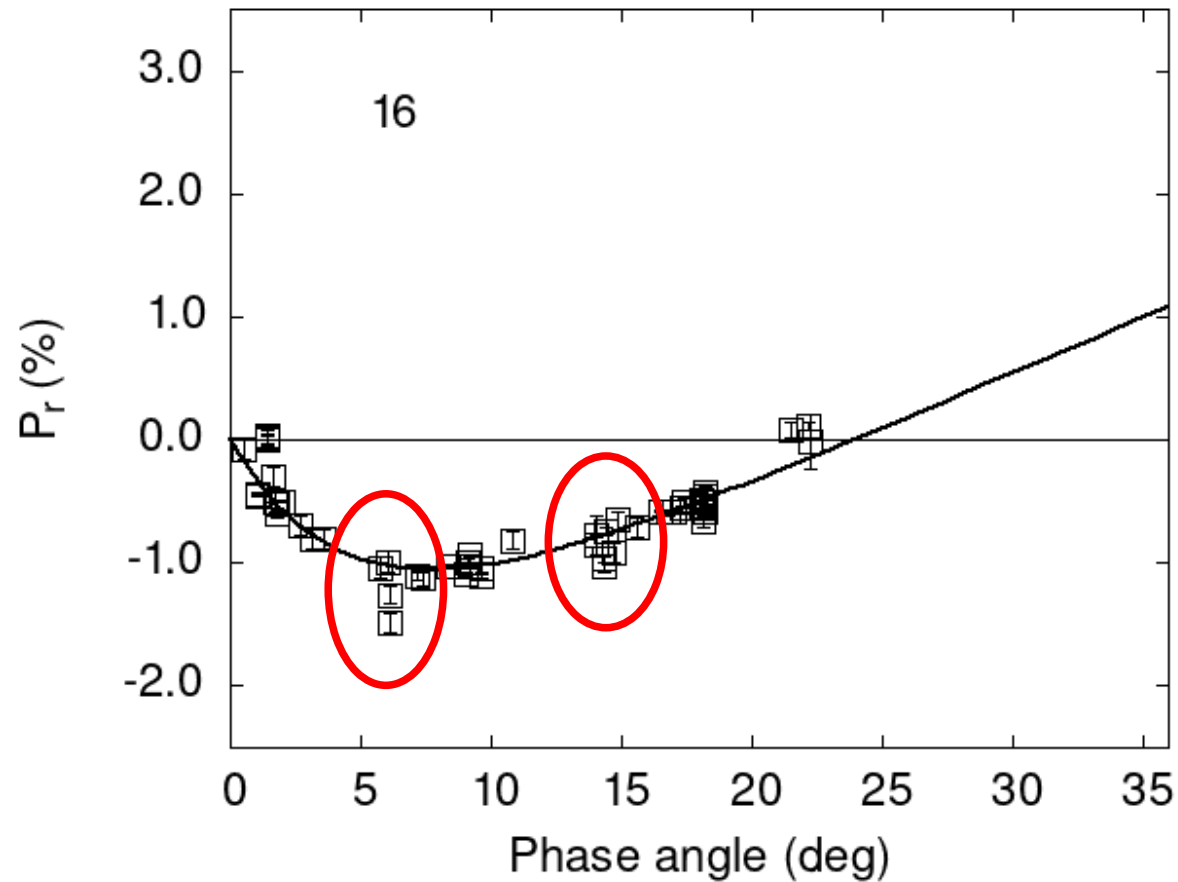
- **Group C:** Asteroids with at least 3 measurements, regular phase coverage and a tentative polarization curve.
- **Group D:** Asteroids with at least 3 measurements and bad phase coverage.
- **Group E:** Asteroids with less than 3 measurements.

Dispersión de valores



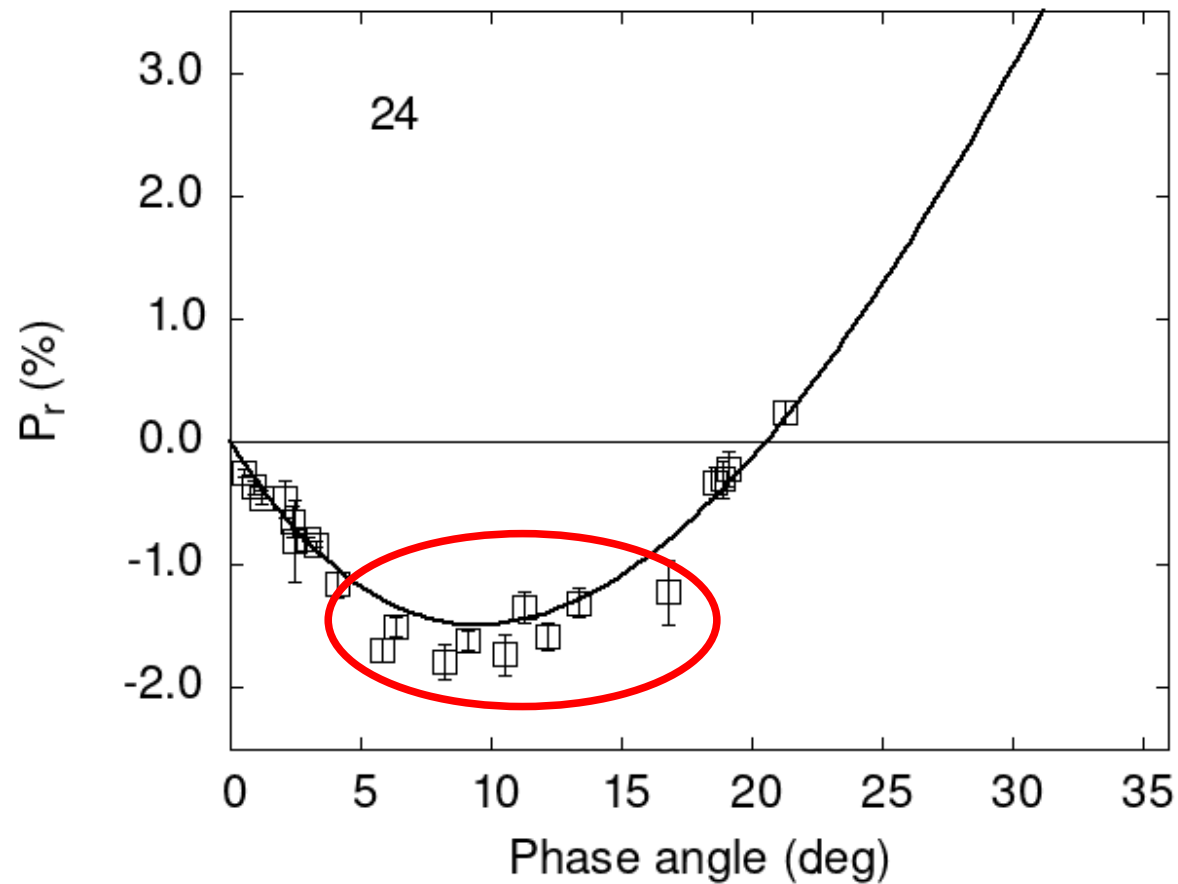
CAPC (2023)

Dispersión de valores



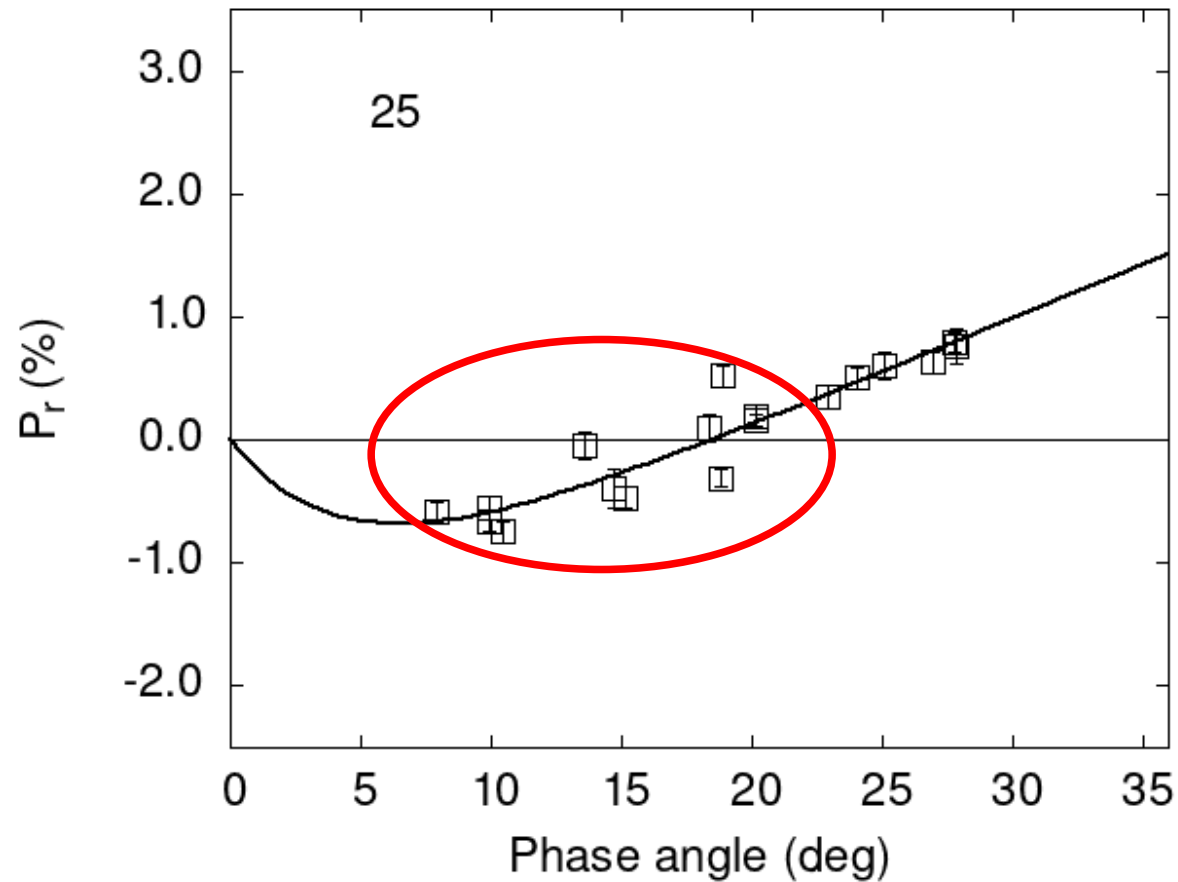
CAPC (2023)

Dispersión de valores



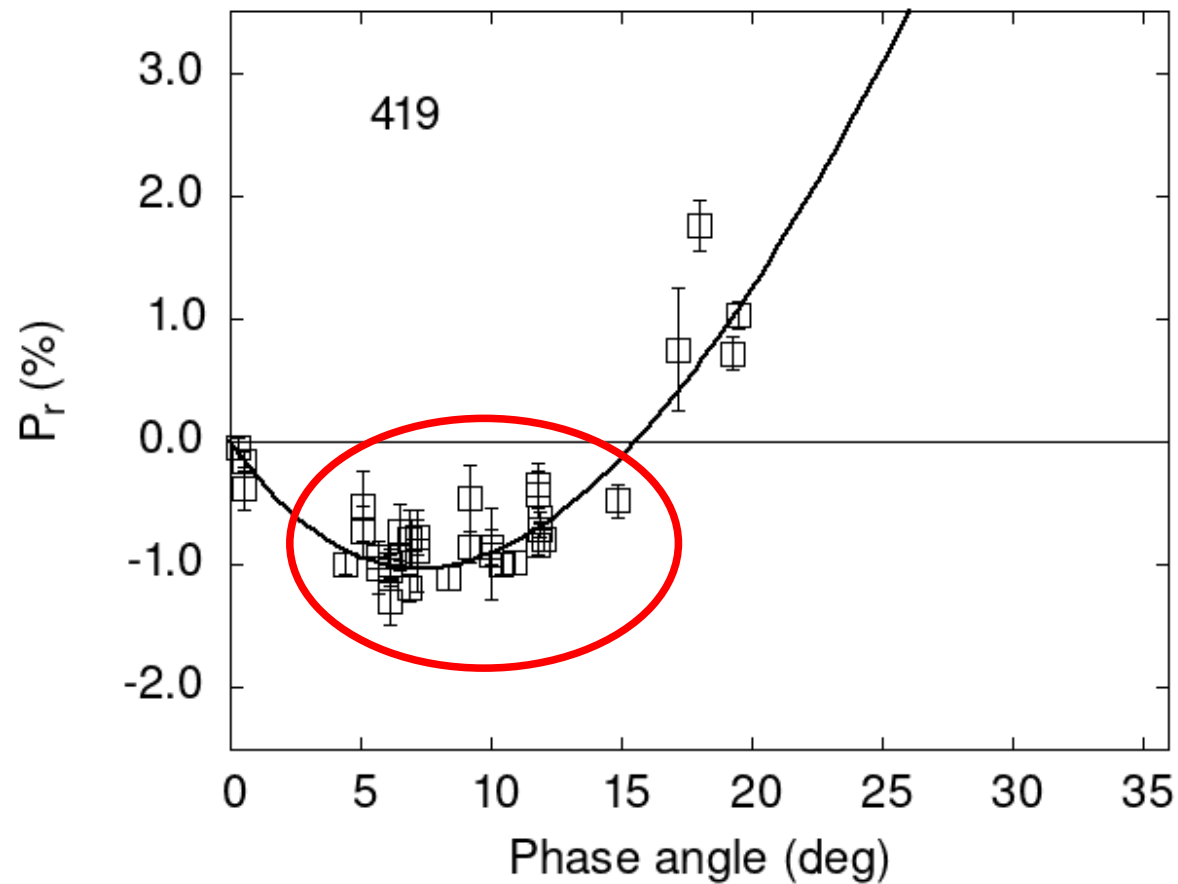
CAPC (2023)

Dispersión de valores



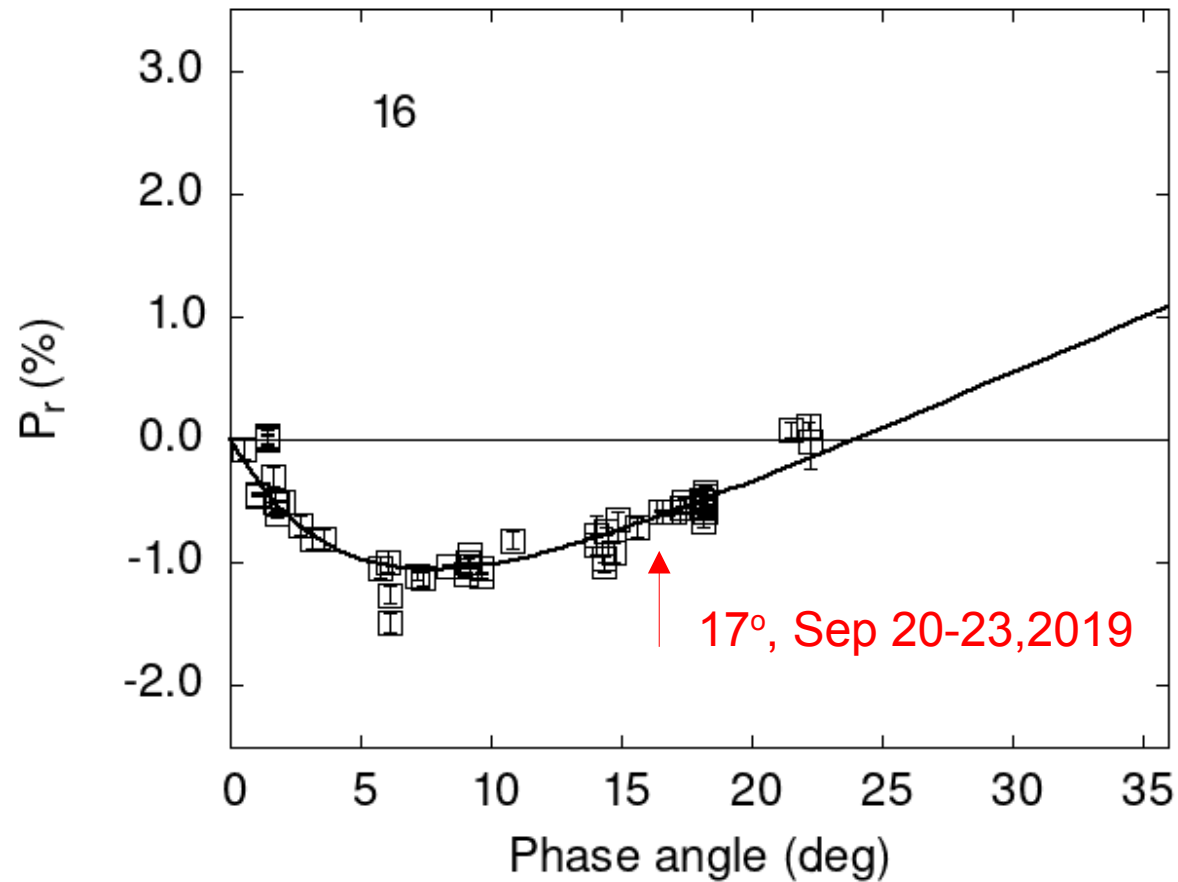
CAPC (2023)

Dispersión de valores



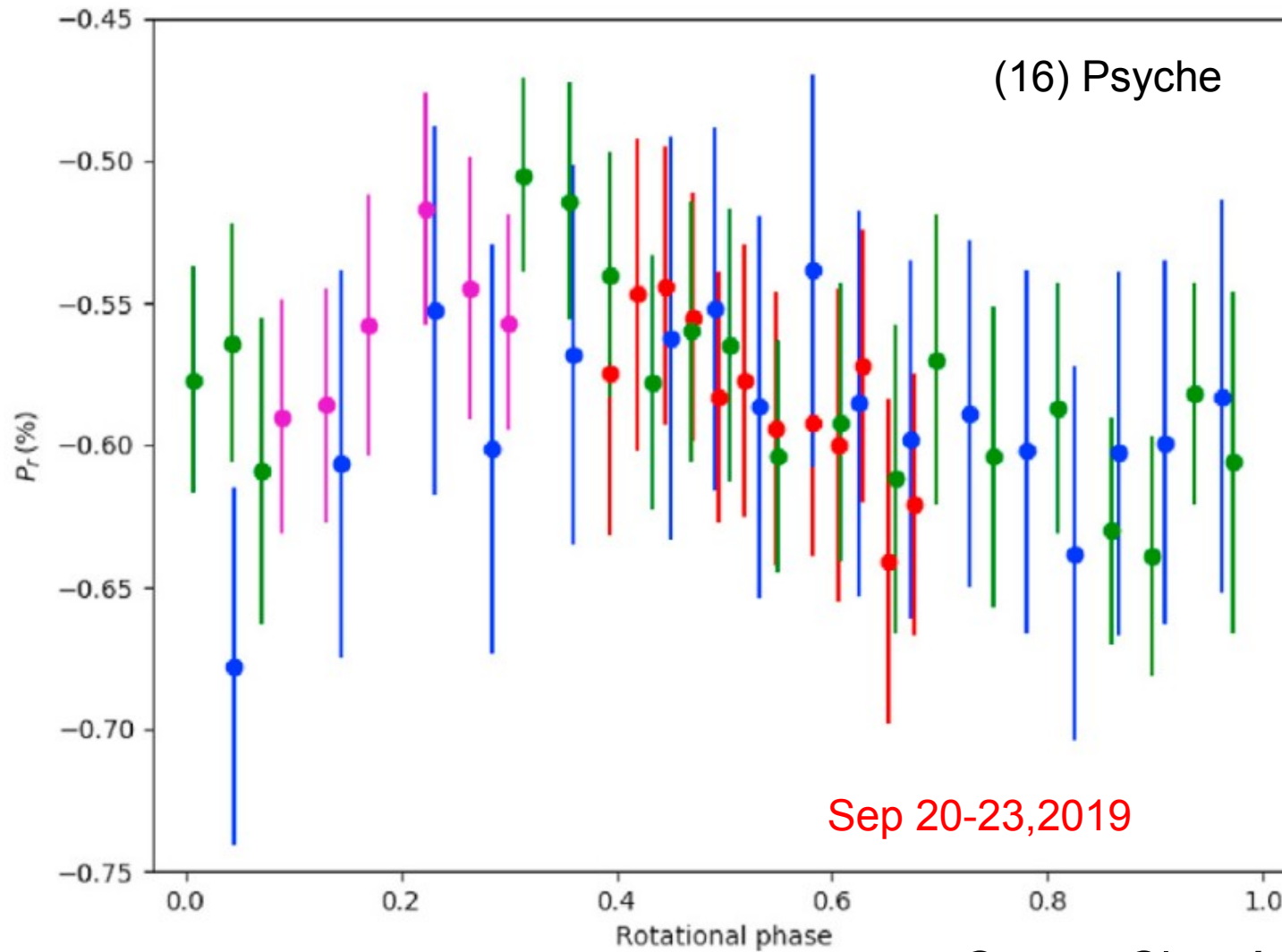
CAPC (2023)

Dispersión de valores



CAPC (2023)

Dispersión de valores



Castro-Chacón et al. (2022)

Candidatos

Group A	6, 12, 16, 24, 59, 69, 85, 97, 124, 129, 132, 210, 216, 230, 234, 236, 365, 387, 419, 443, 478, 863, 1021.
Group B	22, 25, 76, 87, 122, 170, 201, 226, 237, 354, 376, 386, 409, 431, 433, 456, 472, 625, 660, 678, 729, 762, 785, 1627, 3200, 7968.
Group C	50, 58, 123, 131, 158, 217, 238, 341, 368, 558, 755, 757, 787, 824, 1036.

Grupos del CAPC

Candidatos

Group A	6, 12, 16, 24, 59, 69, 85, 97, 124, 129, 132, 210, 216, 230, 234, 236, 365, 387, 419, 443, 478, 863, 1021.
Group B	22, 25, 76, 87, 122, 170, 201, 226, 237, 354, 376, 386, 409, 431, 433, 456, 472, 625, 660, 678, 729, 762, 785, 1627, 3200, 7968.
Group C	50, 58, 123, 131, 158, 217, 238, 341, 368, 558, 755, 757, 787, 824, 1036.

Grupos del CAPC

Candidatos

Group A	6, 12, 16, 24, 59, 69, 85, 97, 124, 129, 132, 210, 216, 230, 234, 236, 365, 387, 419, 443, 478, 863, 1021.
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Grupos del CAPC

Conclusiones

- Las curvas de polarización individuales permiten determinar parámetros polarimétricos medios de las superficies.
- Muchas permiten detectar variaciones en las propiedades de las superficies.
- Es importante comenzar a estudiar las variaciones de la polarización en función de la fase rotacional.
- Hay muchos candidatos accesibles para observar.

