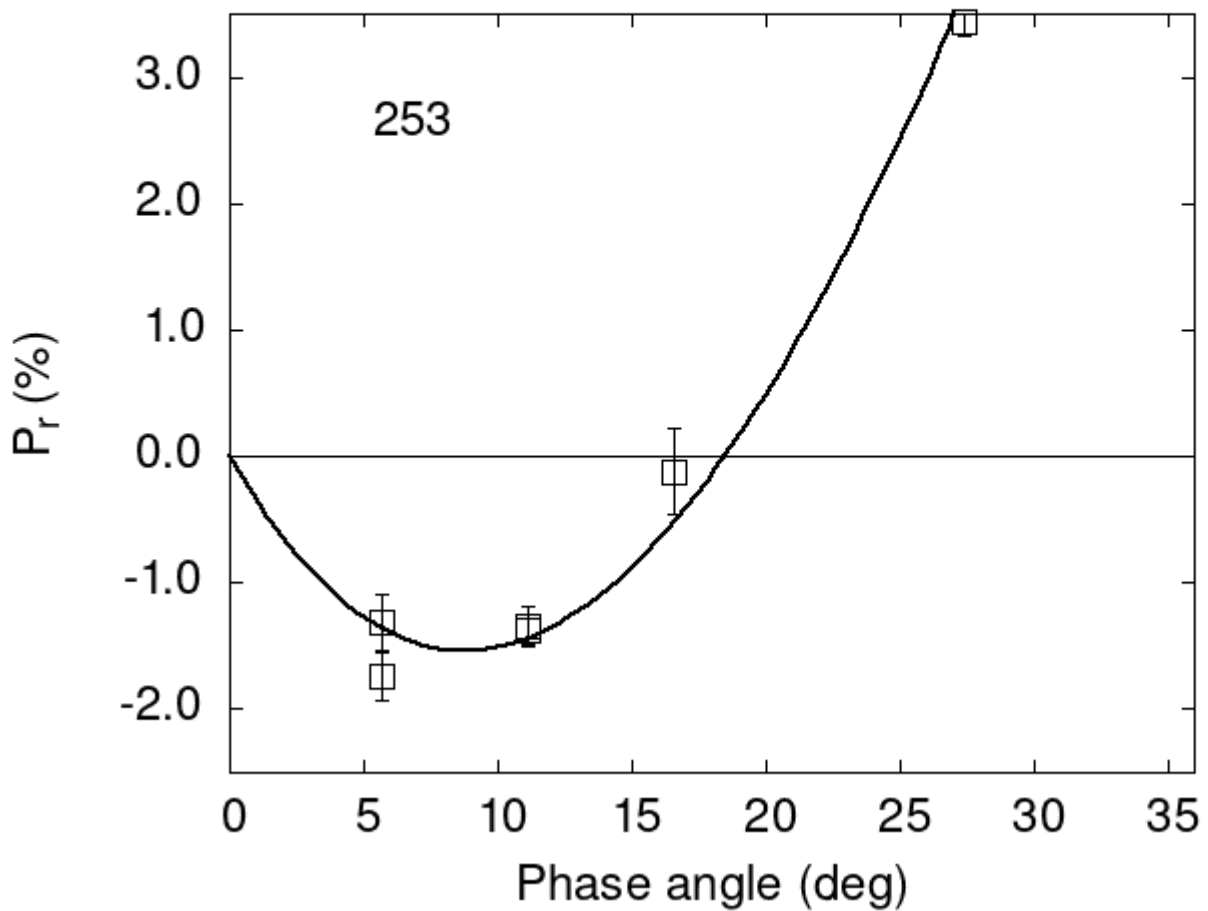# Catalogue of Asteroid Polarization Curves

Gil-Hutton (2023)

Polarimetric data:

The columns list the object number, the phase angle (degrees), P_r (%), its error, the filter used, and the reference code.

```
253 16.58 -0.12 0.34 R f
253  5.65 -1.31 0.22 V a
253  5.65 -1.74 0.19 R a
253 11.10 -1.34 0.15 V a
253 11.10 -1.38 0.13 R a
253 27.40  3.43 0.10 V a
```

```
253 30.19  5.12 0.17 V a
253 30.19  5.35 0.12 R a
```

Polarization Curve Parameters:

The polarimetric parameters were obtained fitting the observations to a polarization curve using the function:

$$P_r(\alpha) = Coe_1 \times \left[\exp\left(-\frac{\alpha}{Coe_2}\right) - 1 \right] + Coe_3 \times \alpha,$$

where α is the phase angle in degrees. The minimum of the polarization curve is identified by Pmin, Phmin is the phase angle where Pmin is reached, Ph0 is the inversion angle, and k is the slope of the polarization curve at Ph0.

```
#
#      Coe1     eCoe1     Coe2     eCoe2      Coe3     eCoe3
#   46.2682   1.5200   31.0193    0.8869    1.1235    0.0225
#
#    Phmin    err    Pmin     err   Ph0     err    k       err
#     8.79   1.35  -1.541   0.510  18.49   0.13 0.3018  0.0364
```