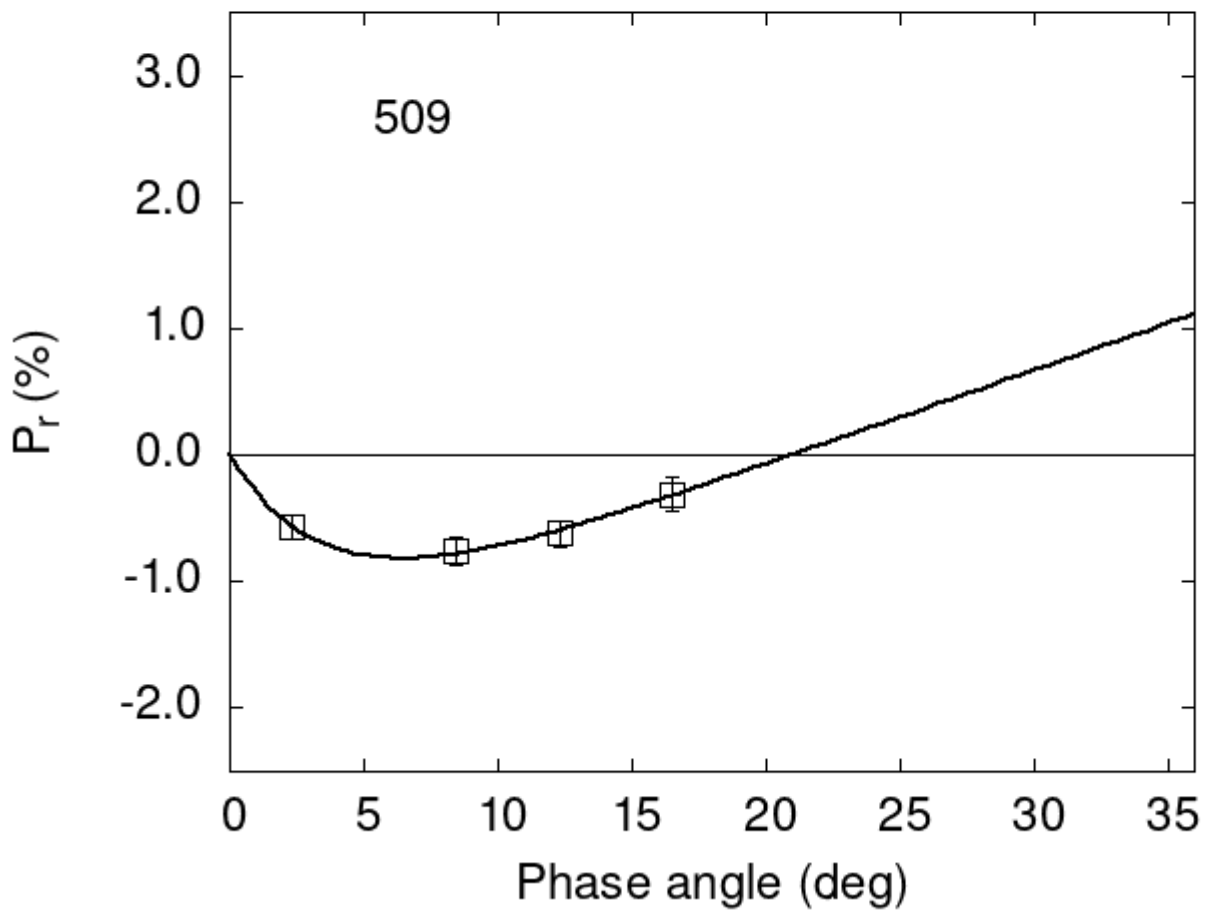# Catalogue of Asteroid Polarization Curves

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.

```
509  2.34 -0.57 0.10 V f
509  8.44 -0.76 0.11 V f
509 12.35 -0.62 0.10 V f
509 16.47 -0.31 0.13 V f
```

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
#    1.5697    0.6247    3.6827    1.5532    0.0744    0.0378
#
#    Phmin    err    Pmin      err  Ph0      err    k        err
#     6.43   2.64  -0.817   0.605 21.00   0.55 0.0730 0.0380
```