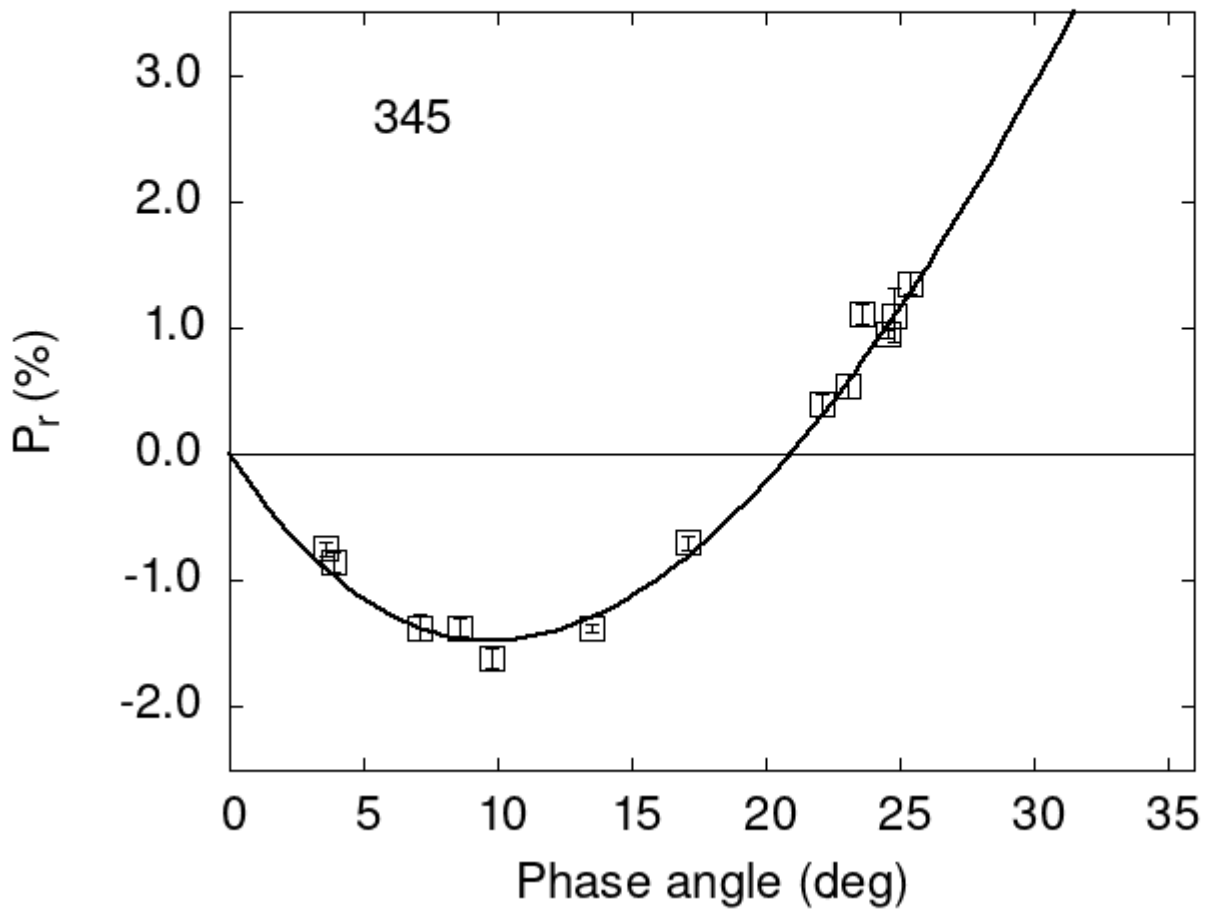# Catalogue of Asteroid Polarization Curves

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.

```
345   3.85  -0.86 0.08 V f
345   7.10  -1.37 0.10 V f
345   8.61  -1.38 0.09 V f
345  22.13   0.39 0.09 V f
345  23.06   0.54 0.10 V f
345  24.79   1.10 0.21 V f
```

```
345 25.36   1.35 0.09 V f
345 23.60   1.11 0.08 V f
345 17.10 -0.70 0.06 V a
345 13.50 -1.37 0.03 V a
345  3.60 -0.75 0.05 V a
345 24.60   0.95 0.03 V a
345  9.80 -1.62 0.08 V h
```

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
#   27.7602    0.6142   26.5964   0.4587    0.7224    0.0105
#
#     Phmin   err    Pmin     err  Ph0     err    k       err
#      9.79  0.76  -1.476   0.247 20.93  0.16 0.2472 0.0150
```