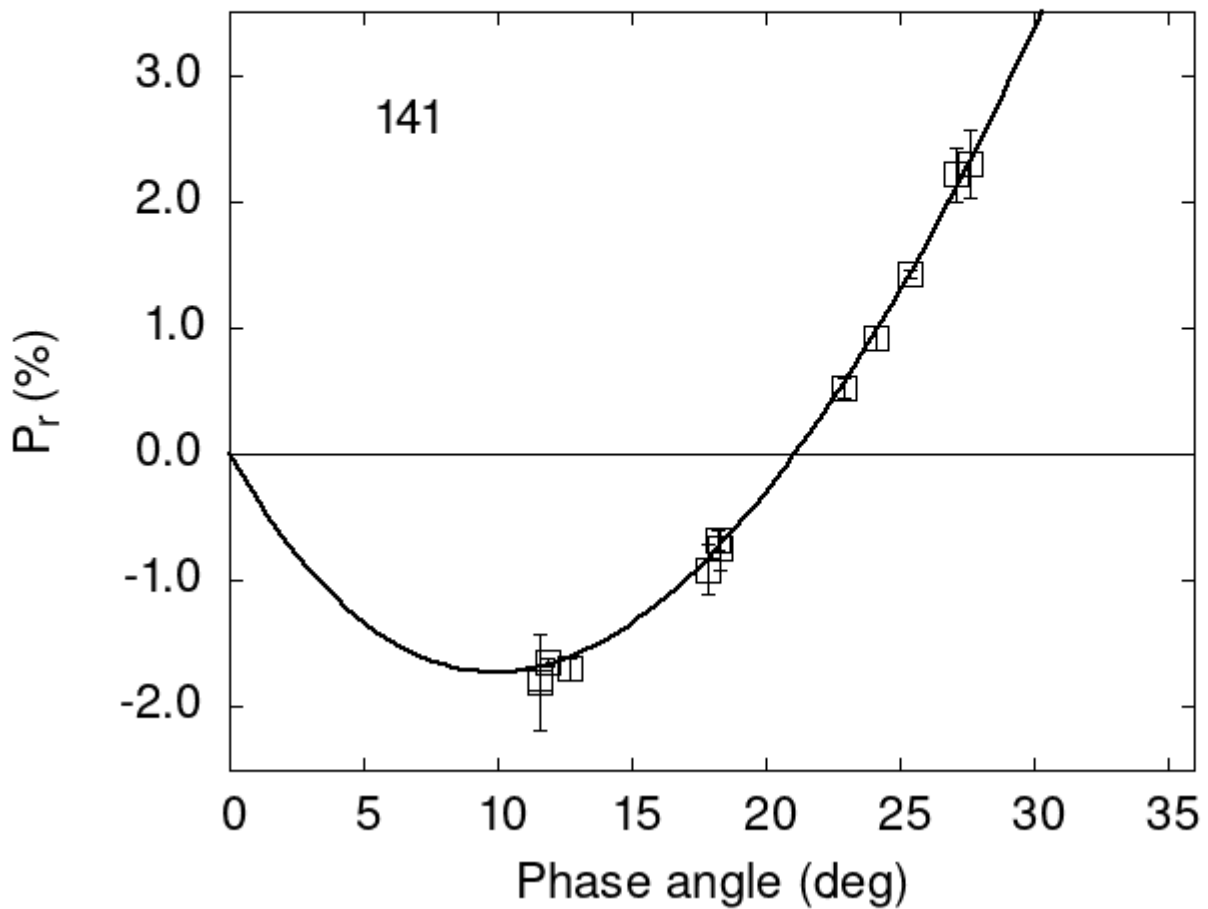# Catalogue of Asteroid Polarization Curves

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.

```
141 12.68 -1.70 0.09 V f
141 18.25 -0.68 0.08 V f
141 22.96  0.52 0.08 V f
141 24.14  0.92 0.09 V f
141 25.40  1.43 0.03 V f
141 11.57 -1.77 0.10 G a
```

```
141 11.59 -1.80 0.38 R a
141 17.82 -0.91 0.20 G a
141 18.30 -0.75 0.17 G a
141 27.12  2.21 0.21 G a
141 27.64  2.29 0.27 G a
141 11.90 -1.65 0.03 V 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
#   36.1473    0.4968  28.6153    0.3102    0.8935    0.0084
#
#     Phmin    err    Pmin     err   Ph0     err    k       err
#      9.91   0.52  -1.726   0.193 21.10   0.14 0.2891 0.0119
```