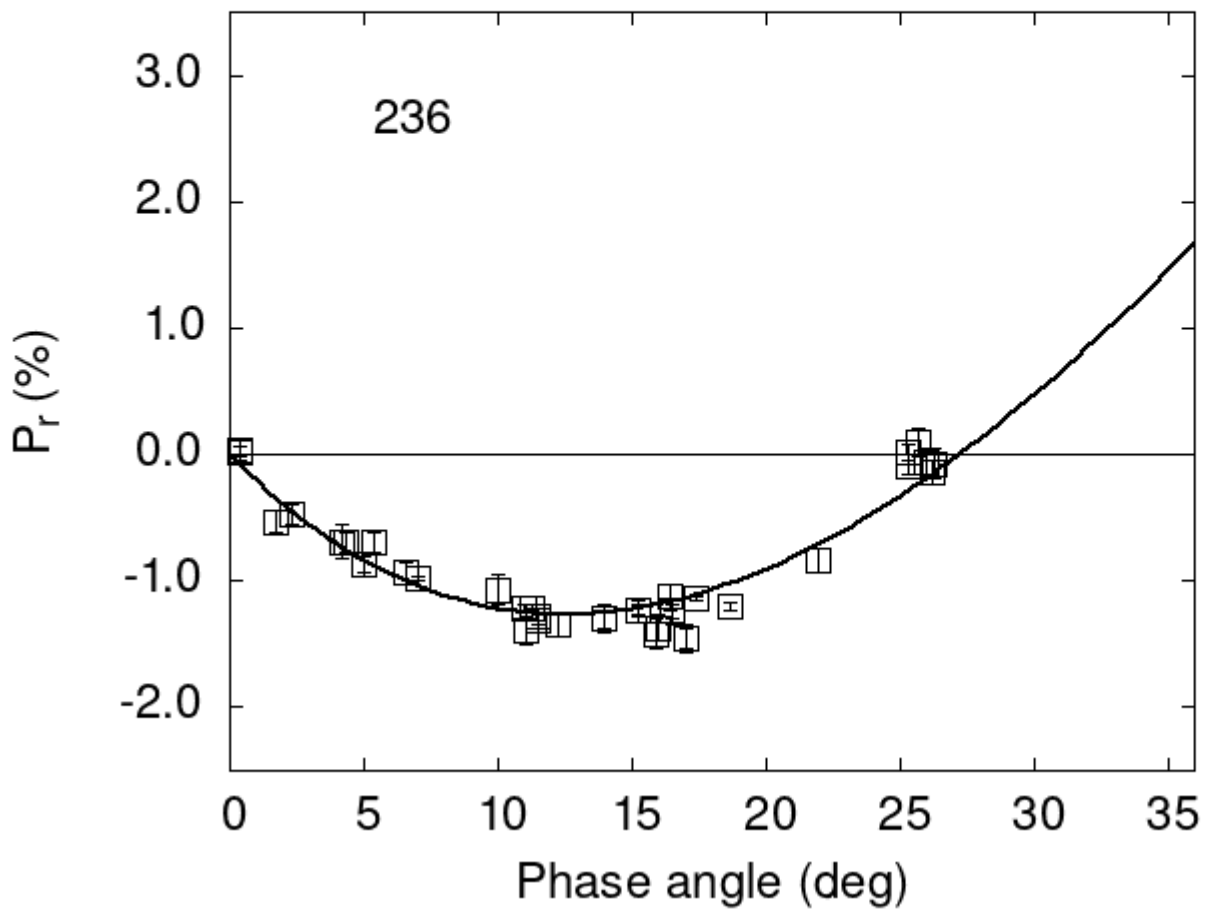# Catalogue of Asteroid Polarization Curves

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.

```
236   0.41   0.03 0.08 V f
236   1.72  -0.53 0.09 V f
236   2.34  -0.48 0.08 V f
236   4.16  -0.69 0.13 V f
236   4.30  -0.69 0.08 V f
236   5.02  -0.87 0.10 V f
```

```
236   5.35 -0.69 0.08 V f
236   6.59 -0.94 0.09 V f
236   9.98 -1.08 0.13 V f
236  11.02 -1.39 0.11 V f
236  11.50 -1.31 0.09 V f
236  12.22 -1.35 0.09 V f
236  13.93 -1.30 0.11 V f
236  15.26 -1.24 0.09 V f
236  15.88 -1.42 0.12 V f
236  16.00 -1.37 0.10 V f
236  16.40 -1.13 0.11 V f
236  16.52 -1.24 0.10 V f
236  17.05 -1.45 0.11 V f
236  21.96 -0.84 0.09 V f
236  25.69  0.09 0.11 V f
236  25.97 -0.06 0.11 V f
236  26.23 -0.14 0.10 V f
236  26.29 -0.07 0.12 V f
236  18.70 -1.20 0.03 V a
236  11.30 -1.21 0.02 V a
236  11.00 -1.21 0.02 V a
236   7.00 -0.98 0.02 V a
236  17.40 -1.14 0.02 V a
236  25.30 -0.10 0.06 V a
236  25.30  0.02 0.06 V a
236  11.50 -1.28 0.06 V a
236  11.50 -1.31 0.04 V a
236   0.41  0.02 0.04 V a
236   0.41  0.03 0.03 V a
236  15.26 -1.23 0.04 V a
236  15.26 -1.24 0.04 V a
236   5.02 -0.87 0.06 V a
236   9.98 -1.08 0.10 V a
236  13.93 -1.30 0.07 V a
236  16.52 -1.24 0.06 V a
236  17.05 -1.45 0.08 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
```

```
#    17.0722   0.3995  28.1578   0.4453   0.3883   0.0067
#
#    Phmin   err   Pmin    err  Ph0   err   k     err
#    12.54  0.85 -1.266  0.183 27.26  0.25 0.1581 0.0086
```