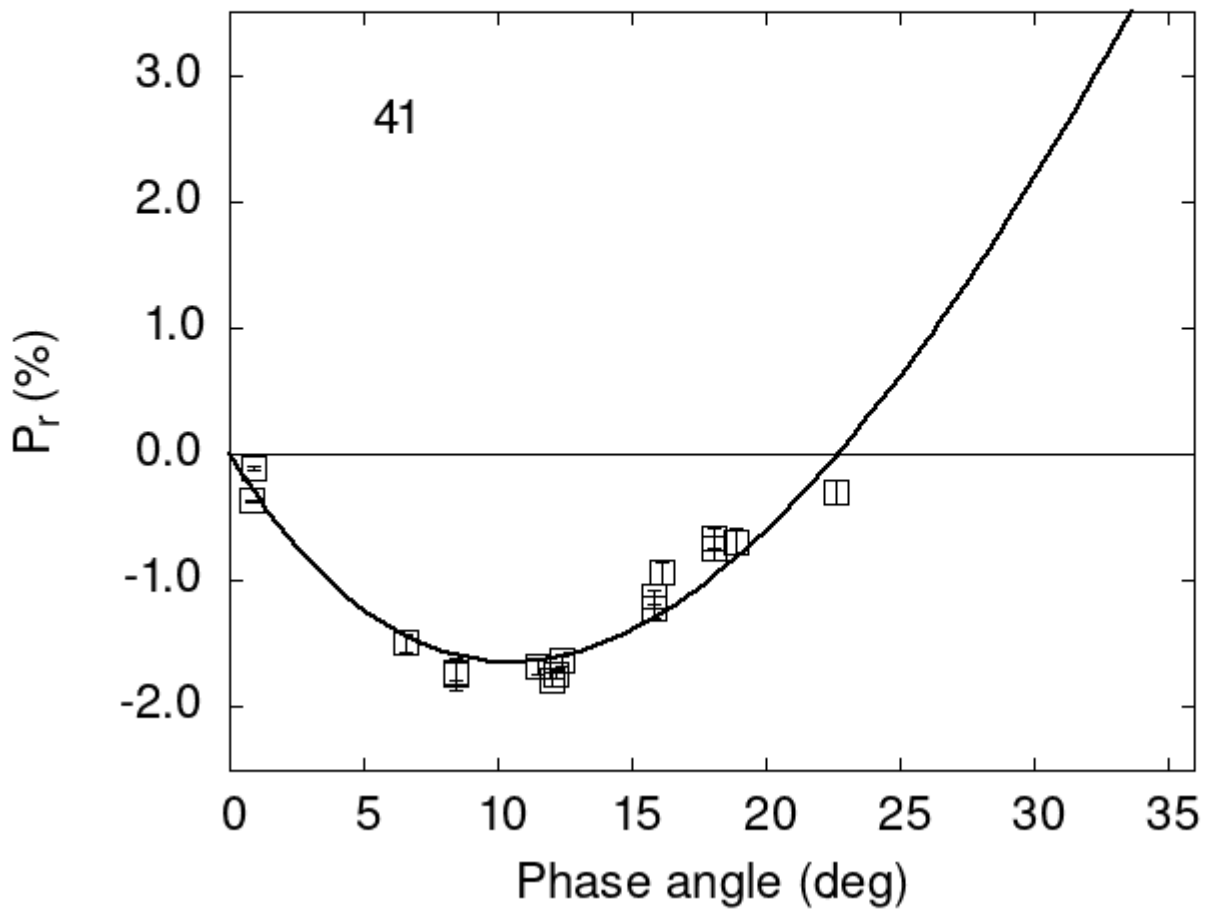# Catalogue of Asteroid Polarization Curves

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.

```
41 12.00 -1.78 0.05 V f
41 12.20 -1.74 0.03 V f
41 12.40 -1.63 0.04 V f
41  8.41 -1.72 0.07 V a
41  8.41 -1.74 0.13 R a
41 11.50 -1.68 0.06 V a
```

```
  41 18.10 -0.66 0.08 V a
  41 18.10 -0.74 0.09 R a
  41  6.60 -1.49 0.07 V a
  41 15.80 -1.21 0.09 V a
  41 15.80 -1.13 0.06 R a
  41  0.90 -0.11 0.01 V a
  41  0.80 -0.37 0.01 V a
  41 16.10 -0.94 0.08 V a
  41 22.60 -0.30 0.09 V a
  41 18.90 -0.69 0.10 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
#    22.5824   0.8196   23.7389   0.5210    0.6122    0.0179
#
#     Phmin   err    Pmin    err  Ph0    err    k      err
#     10.46  1.14  -1.644  0.374 22.71  0.16 0.2468 0.0222
```