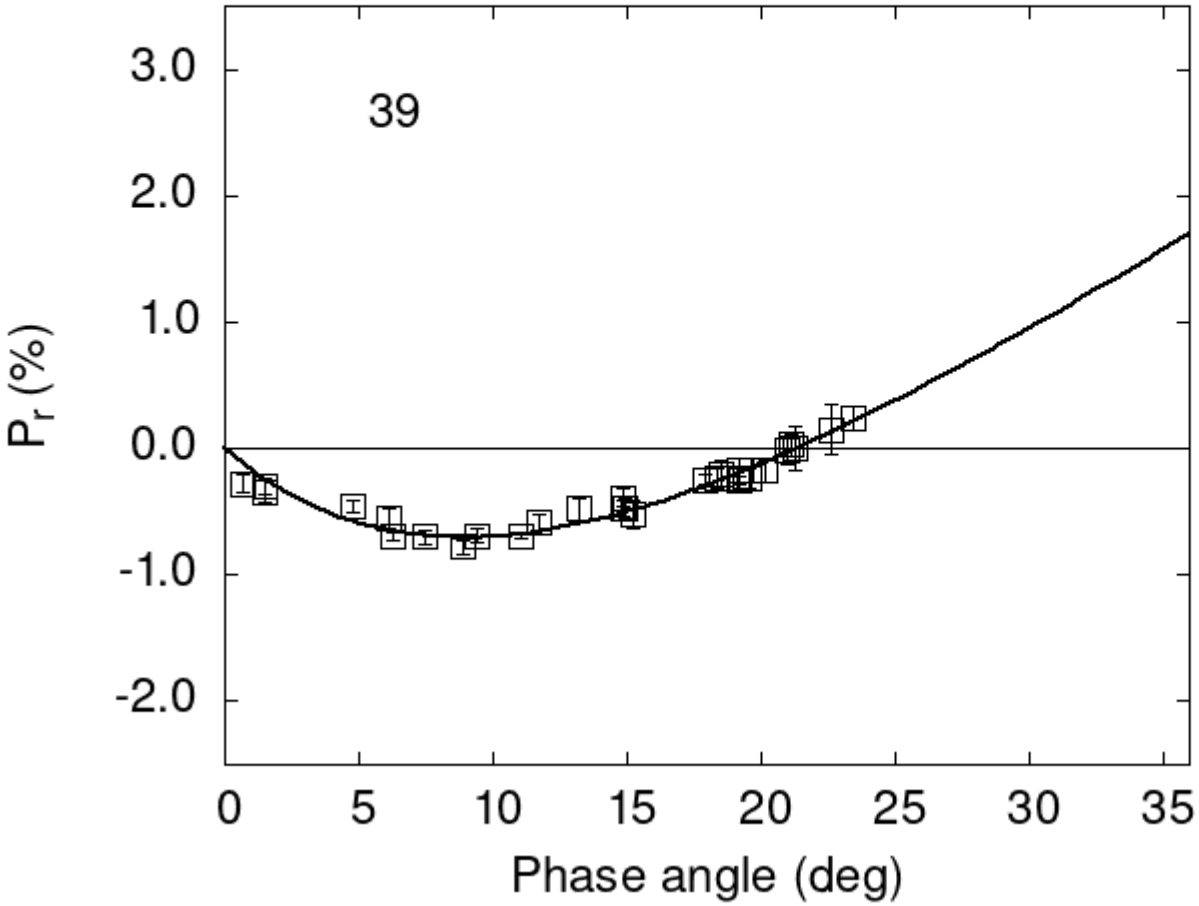
Catalogue of Asteroid Polarization Curves

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.

```
39  6.10 -0.55 0.08 V f
39 15.27 -0.52 0.11 V f
39 18.38 -0.24 0.08 V f
39 18.50 -0.20 0.10 V f
39 19.58 -0.24 0.08 V f
39 20.20 -0.18 0.08 V f
```

```
39 22.63  0.15 0.20 G a
39 21.29  0.00 0.18 G a
39 14.93 -0.48 0.08 G a
39  8.88 -0.78 0.06 G a
39  0.68 -0.28 0.07 G a
39  7.49 -0.70 0.06 G a
39 20.96 -0.01 0.11 G a
39 21.17  0.03 0.09 G a
39 23.47  0.24 0.09 G a
39 17.90 -0.25 0.04 G a
39  6.29 -0.70 0.03 G a
39 11.09 -0.69 0.02 G a
39  9.40 -0.69 0.06 V a
39 14.90 -0.47 0.06 V a
39 14.90 -0.39 0.07 R a
39  1.50 -0.34 0.09 V a
39  1.50 -0.30 0.07 R a
39 11.70 -0.58 0.06 V a
39 19.20 -0.17 0.09 V a
39 19.20 -0.23 0.08 R a
39 19.20 -0.25 0.03 V a
39 13.20 -0.48 0.09 V a
39  4.80 -0.46 0.05 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
#    3.4371   0.2635  10.6806   0.6386   0.1391   0.0086
#
#     Phmin   err   Pmin    err  Ph0    err    k      err
#      8.96  1.06 -0.705  0.184 21.35  0.42 0.0955 0.0096
```