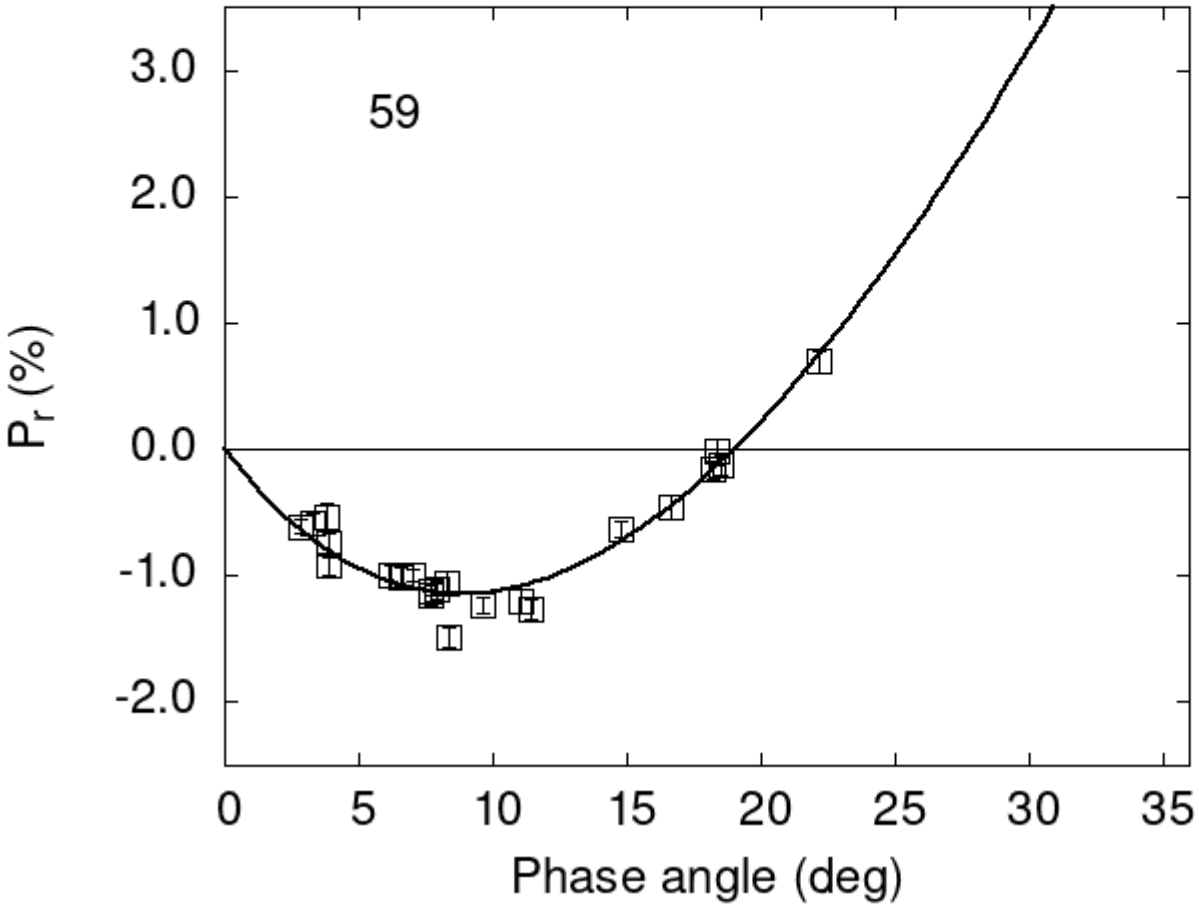
Catalogue of Asteroid Polarization Curves

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.

```
59  3.82 -0.53 0.11 V f
59  3.90 -0.74 0.08 V f
59  6.22 -1.00 0.09 V f
59  7.67 -1.16 0.08 V f
59  8.28 -1.06 0.09 V f
59 11.06 -1.20 0.10 V f
```

```
59 11.41 -1.26 0.08 V f
59 16.64 -0.46 0.09 V f
59 18.40 -0.02 0.10 V f
59 18.55 -0.12 0.08 V f
59 22.19  0.69 0.09 V f
59  7.00 -1.00 0.05 V a
59  6.60 -1.01 0.07 V a
59  9.60 -1.23 0.06 V a
59 14.80 -0.63 0.06 V a
59  8.40 -1.48 0.08 R a
59  7.95 -1.11 0.07 R a
59  3.87 -0.92 0.07 R a
59  2.84 -0.61 0.06 R a
59  3.25 -0.59 0.09 R a
59 18.26 -0.16 0.07 R a
59  7.67 -1.13 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
#   20.0212   0.7013  23.1298   0.5878   0.5900   0.0130
#
#     Phmin   err   Pmin    err  Ph0    err    k      err
#      8.87  1.02 -1.144  0.284 19.02  0.19 0.2097 0.0187
```