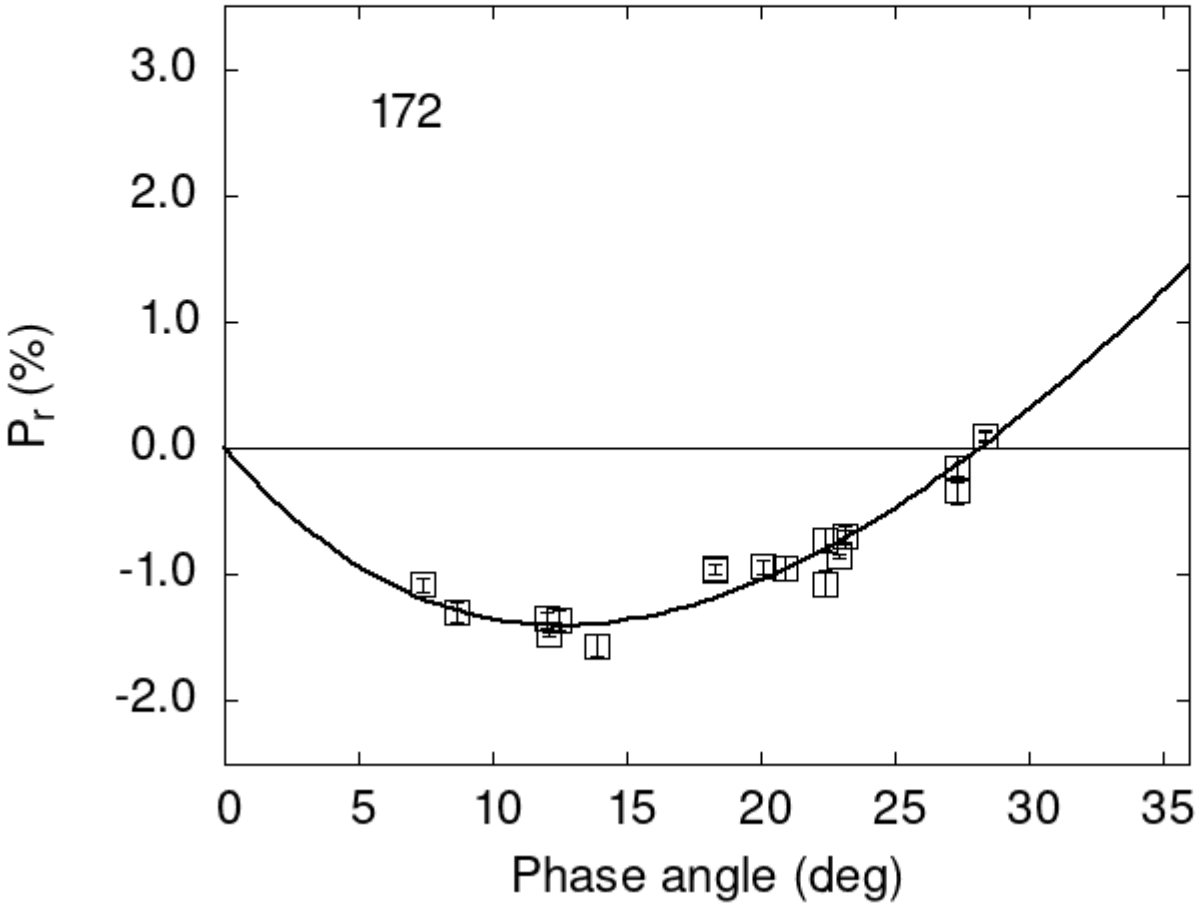
Catalogue of Asteroid Polarization Curves

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.

```
172  8.70 -1.30 0.08 V f
172 12.00 -1.34 0.09 V f
172 12.50 -1.36 0.08 V f
172 13.92 -1.56 0.09 V f
172 20.93 -0.95 0.09 V f
172 23.17 -0.70 0.09 V f
```

```
172 18.30 -0.95 0.04 V f
172  7.41 -1.08 0.06 G a
172 22.43 -0.72 0.09 V a
172 22.43 -1.07 0.10 R a
172 28.40  0.09 0.04 V a
172 28.40  0.10 0.04 V a
172 22.90 -0.85 0.02 V a
172 12.10 -1.47 0.02 V a
172 20.10 -0.94 0.05 V a
172 18.30 -0.96 0.04 V a
172 27.30 -0.33 0.11 V a
172 27.30 -0.16 0.10 V a
172 23.17 -0.70 0.05 V a
172 12.00 -1.34 0.04 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
#   12.0369   0.4497  21.5905   0.5891   0.3111   0.0080
#
#     Phmin   err   Pmin    err  Ph0    err    k      err
#     12.59  1.01 -1.401  0.247 28.20  0.25 0.1601 0.0099
```