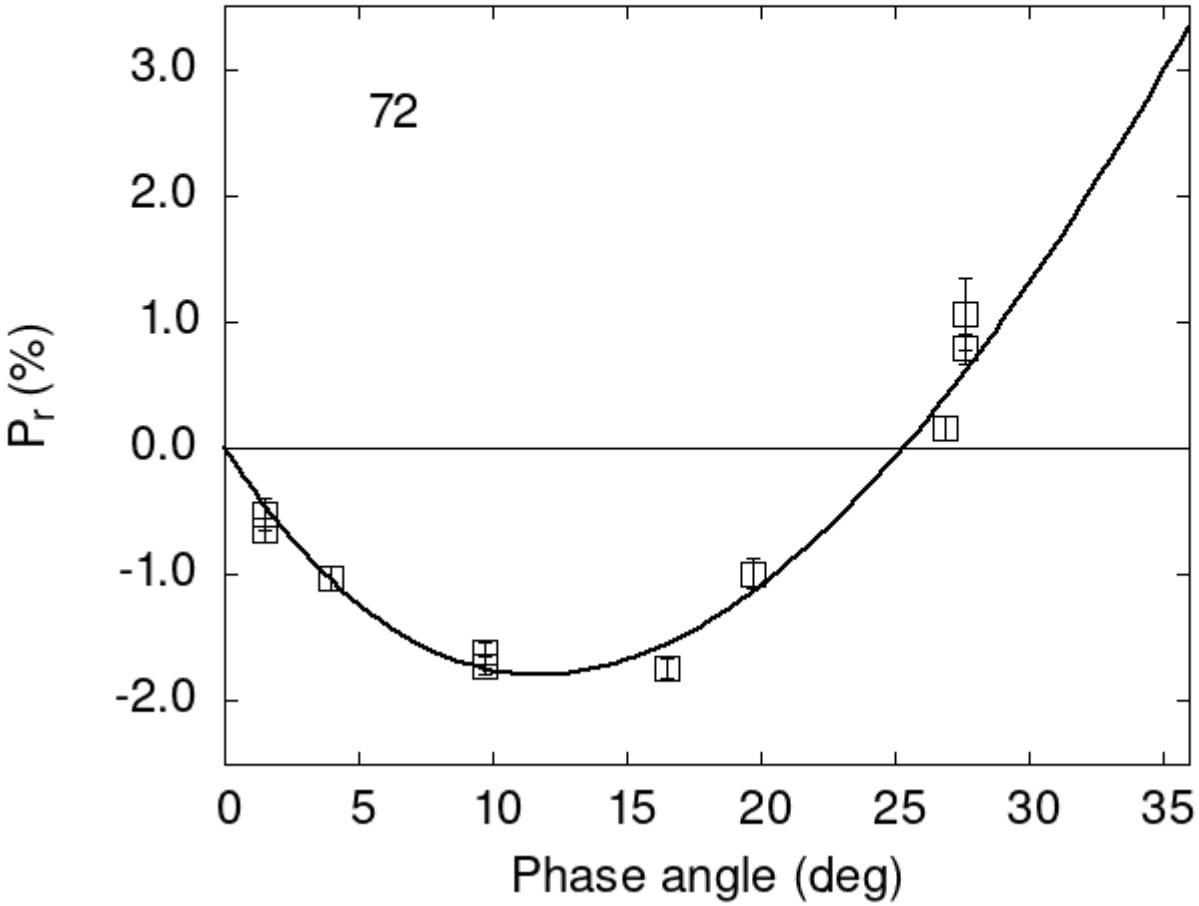
Catalogue of Asteroid Polarization Curves

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.

```
72  3.98 -1.03 0.09 V f
72 16.51 -1.74 0.08 V f
72 26.86  0.16 0.10 V f
72  1.50 -0.65 0.10 V a
72  1.50 -0.52 0.12 R a
72  9.70 -1.62 0.09 V a
```

```
72  9.70 -1.72 0.07 R a
72 19.70 -0.99 0.12 V a
72 27.60  0.79 0.12 V h
72 27.60  1.06 0.29 V h
```

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
#   28.3326   1.1344  28.9116   0.8896   0.6527   0.0167
#
#     Phmin   err   Pmin    err  Ph0    err    k      err
#     11.75  1.47 -1.793  0.488 25.33  0.16 0.2446 0.0234
```