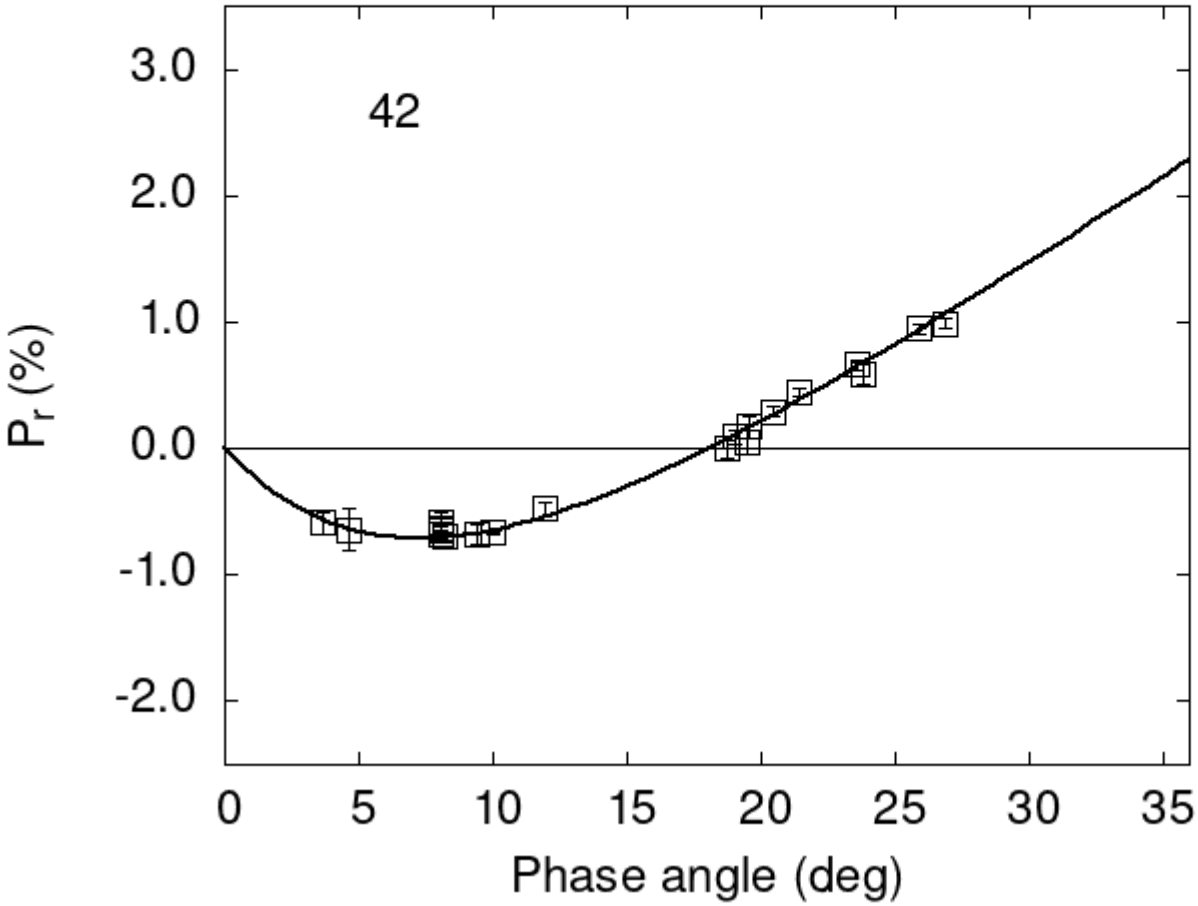
Catalogue of Asteroid Polarization Curves

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.

```
42  3.63 -0.59 0.09 V f
42  8.09 -0.63 0.08 V f
42  8.09 -0.59 0.08 R f
42  9.41 -0.68 0.08 V f
42 19.53  0.05 0.09 V f
42 19.54  0.17 0.09 V f
```

```
42 23.79  0.59 0.08 V f
42 11.92 -0.48 0.05 G a
42  4.63 -0.64 0.17 G a
42 18.71  0.00 0.07 G a
42 19.03  0.09 0.05 G a
42 21.47  0.45 0.03 G a
42 25.93  0.95 0.04 G a
42  8.20 -0.69 0.03 V a
42 20.50  0.29 0.04 V a
42 26.90  0.99 0.04 V a
42 23.60  0.66 0.04 V a
42 10.00 -0.67 0.01 V a
42  8.09 -0.64 0.03 V a
42  8.09 -0.68 0.03 R 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
#    2.7709   0.2467   7.4496   0.7543   0.1396   0.0085
#
#     Phmin   err   Pmin    err  Ph0    err    k      err
#      7.30  0.80 -0.712  0.195 18.10  0.37 0.1068 0.0101
```