Catalogue of Asteroid Polarization Curves
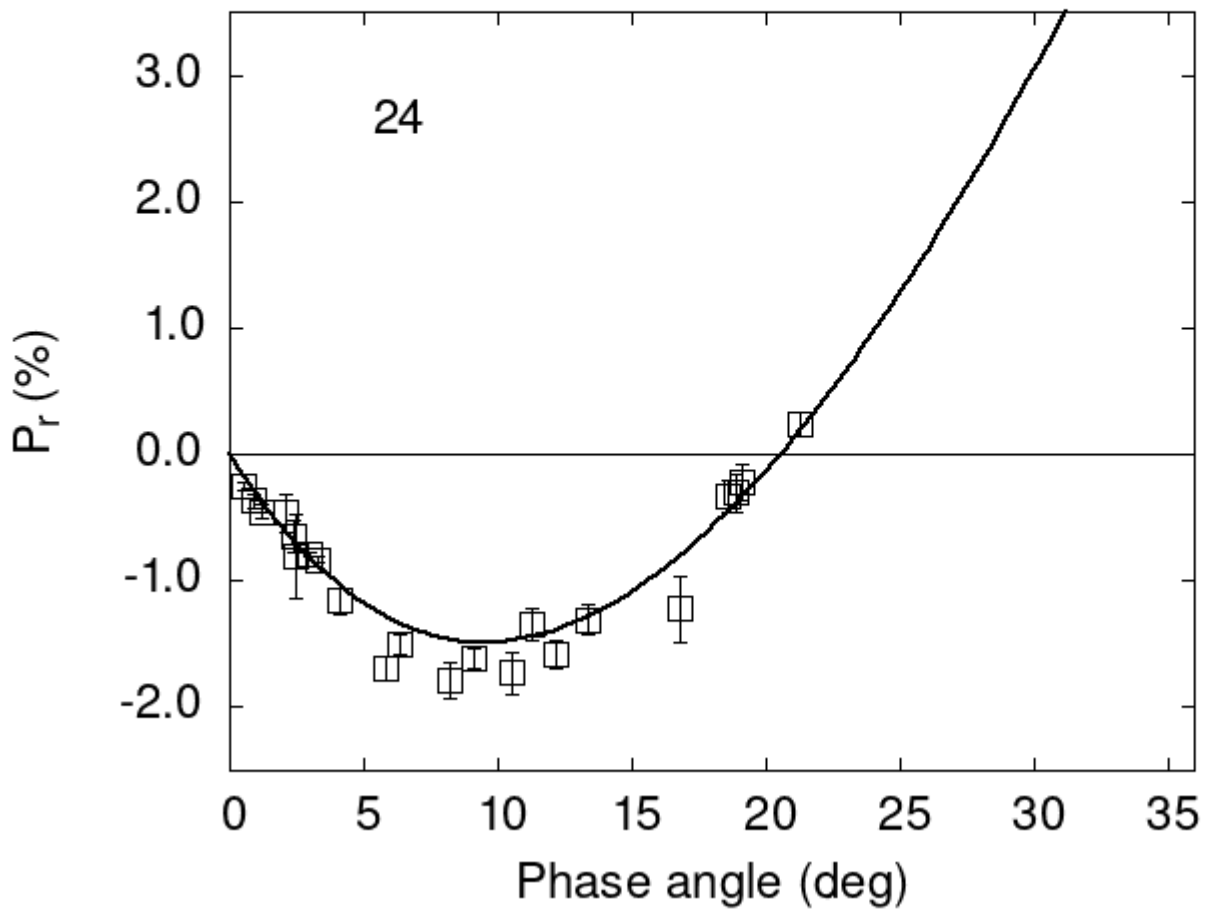
Gil-Hutton (2023)

Polarimetric data:

The columns list the object number, the phase angle (degrees), P_r (%), its error, the filter used, and the reference code.

```
24   5.83 -1.69 0.10 V f
24   6.36 -1.50 0.08 V f
24   9.09 -1.61 0.08 V f
24  16.78 -1.22 0.26 V f
24  21.32  0.24 0.10 V f
24   2.10 -0.46 0.15 V a
```

```
24   2.50 -0.81 0.33 V a
24   4.10 -1.16 0.10 V a
24 10.50 -1.73 0.17 V a
24 11.30 -1.34 0.13 V a
24 12.20 -1.58 0.11 V a
24 13.40 -1.31 0.12 V a
24 18.60 -0.33 0.13 V a
24 18.90 -0.30 0.15 V a
24 19.10 -0.22 0.15 V a
24   0.54 -0.25 0.03 R a
24   0.89 -0.37 0.06 R a
24   1.22 -0.45 0.05 R a
24   3.00 -0.79 0.02 V a
24   3.30 -0.83 0.02 V a
24   2.40 -0.65 0.13 R b
24   8.20 -1.79 0.14 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
#    22.0155   0.7885   22.5134   0.4912    0.6411    0.0169
#
#     Phmin    err    Pmin     err  Ph0     err    k        err
#      9.51   1.04  -1.489   0.342 20.55   0.16 0.2486  0.0220
```