Catalogue of Asteroid Polarization Curves
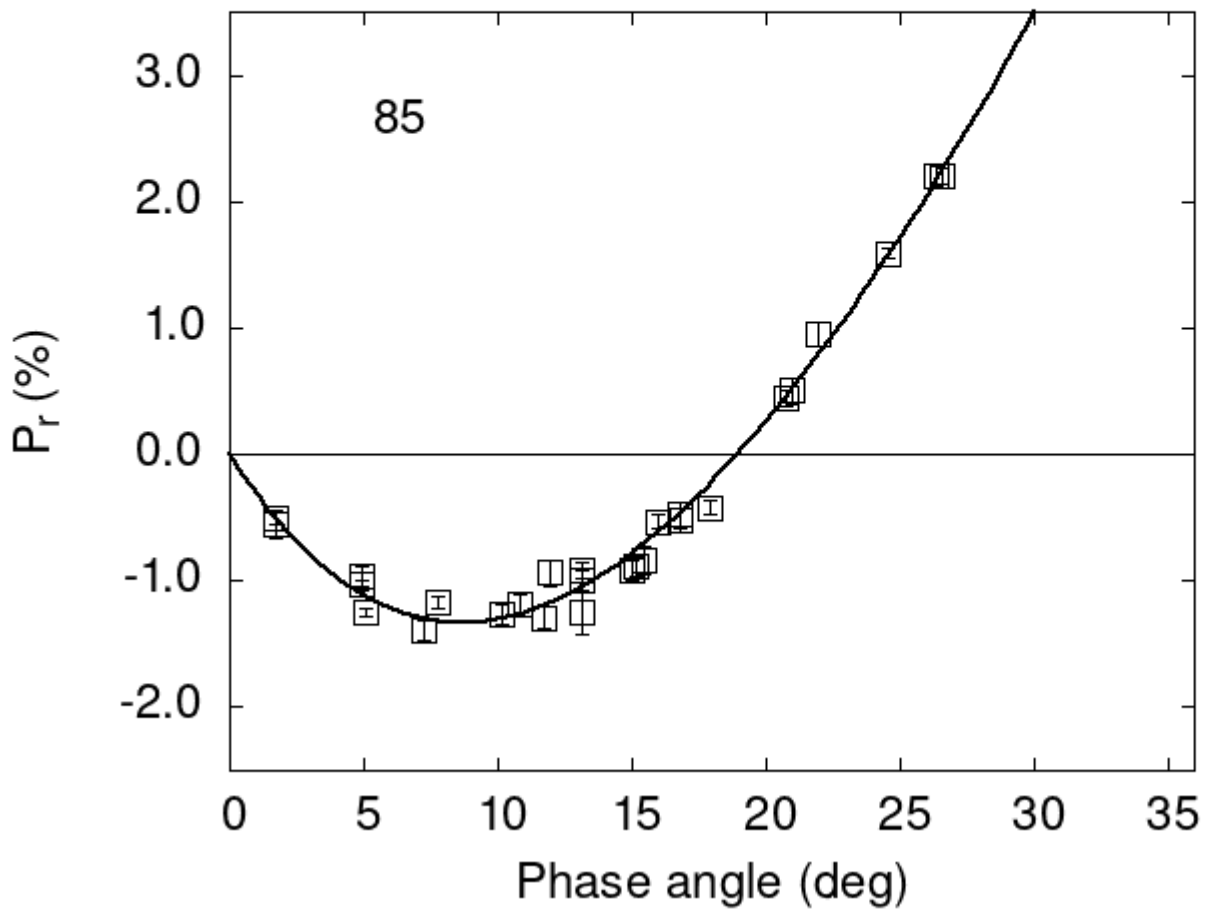
Gil-Hutton (2023)

Polarimetric data:

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

```
85  7.26 -1.39 0.08 V f
85 10.13 -1.27 0.08 V f
85 10.81 -1.19 0.09 V f
85 11.95 -0.94 0.10 V f
85 13.11 -0.99 0.08 V f
85 15.03 -0.91 0.08 V f
```

```
85 15.13 -0.88 0.08 V f
85 15.49 -0.84 0.11 V f
85 21.99  0.95 0.09 V f
85 26.37  2.20 0.08 V f
85  5.10 -1.25 0.03 V f
85  1.72 -0.55 0.11 V a
85  1.72 -0.50 0.06 R a
85  4.95 -0.97 0.08 V a
85  4.95 -1.03 0.04 R a
85 13.18 -1.25 0.17 V a
85 13.18 -0.92 0.06 R a
85 16.80 -0.52 0.09 V a
85 16.80 -0.48 0.10 R a
85  7.80 -1.17 0.05 V a
85 16.00 -0.53 0.06 V a
85 24.60  1.59 0.04 V a
85 11.70 -1.29 0.09 V a
85 20.80  0.44 0.06 V a
85 17.90 -0.42 0.06 V a
85 21.00  0.50 0.11 V a
85 26.60  2.20 0.06 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
#    15.9717   1.1504   18.1684   0.9042    0.5456    0.0245
#
#     Phmin    err    Pmin      err   Ph0     err    k        err
#      8.67   1.61  -1.331   0.539  18.96   0.17  0.2360   0.0331
```