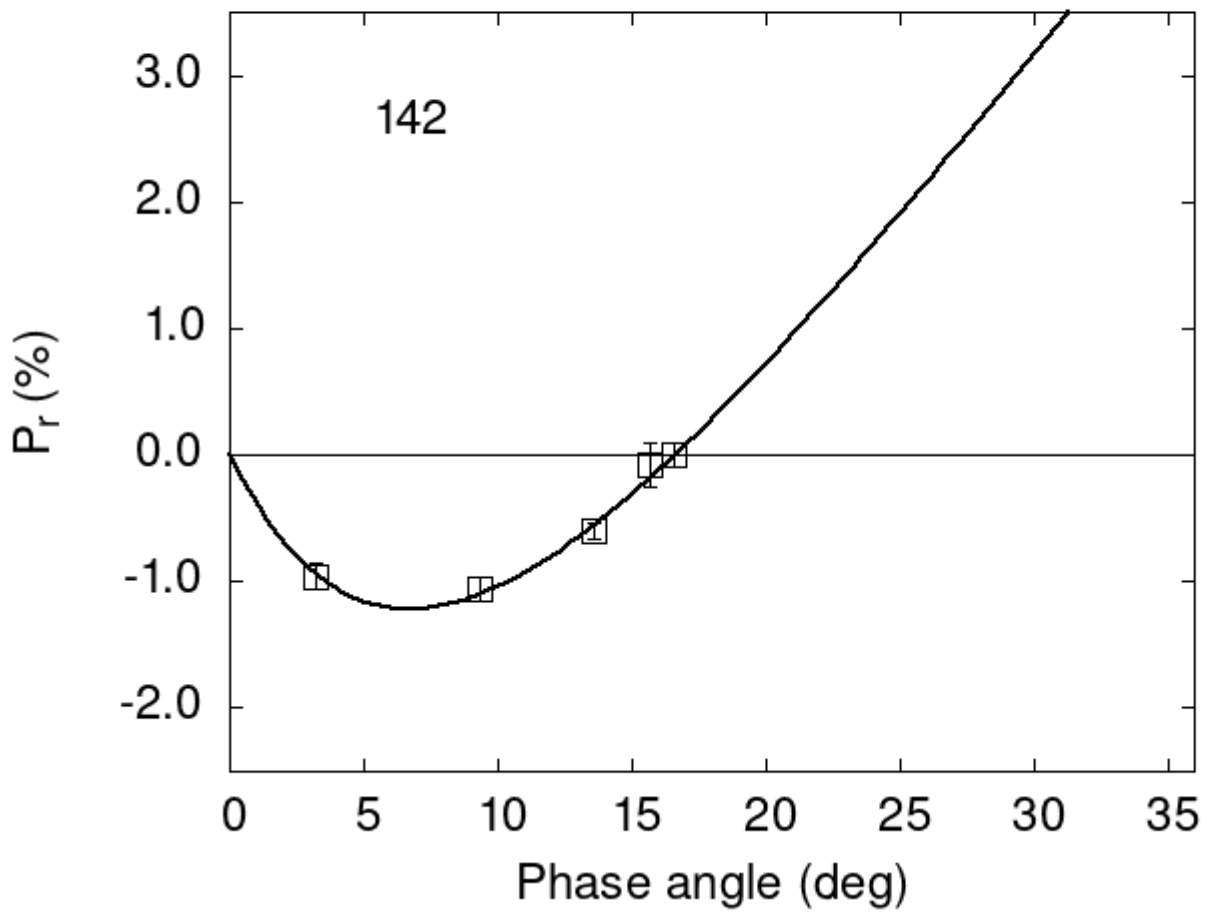# Catalogue of Asteroid Polarization Curves

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.

```
142 16.61 -0.00 0.09 V f
142  9.33 -1.06 0.09 V a
142 13.57 -0.60 0.06 V a
142 15.70 -0.08 0.17 V a
142  3.20 -0.96 0.10 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
#    4.8637    0.5979    6.9989    1.0266    0.2650    0.0267
#
#     Phmin    err    Pmin     err   Ph0     err     k       err
#      6.75   1.11  -1.221   0.488  16.64   0.20  0.2005  0.0307
```