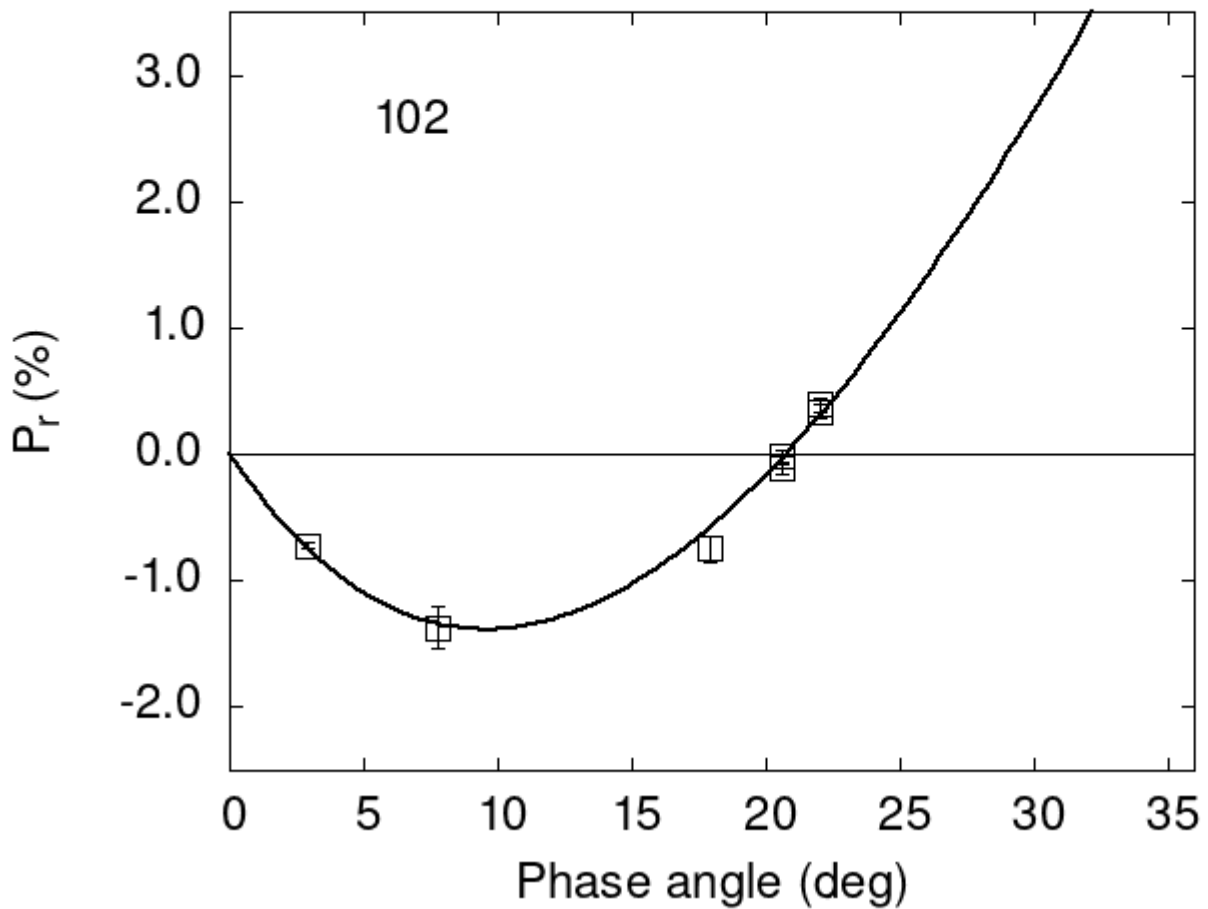# Catalogue of Asteroid Polarization Curves

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.

```
102   7.80 -1.37 0.17 V f
102   2.90 -0.72 0.03 V a
102  22.03  0.39 0.06 V a
102  22.03  0.34 0.05 R a
102  20.64 -0.02 0.06 V a
102  20.64 -0.11 0.05 R a
```

```
102 17.90 -0.75 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
#    19.4750    0.6618   21.9940    0.6885    0.5731    0.0125
#
#     Phmin    err    Pmin     err  Ph0     err    k        err
#      9.57   0.97  -1.387   0.313 20.76   0.18 0.2285  0.0171
```