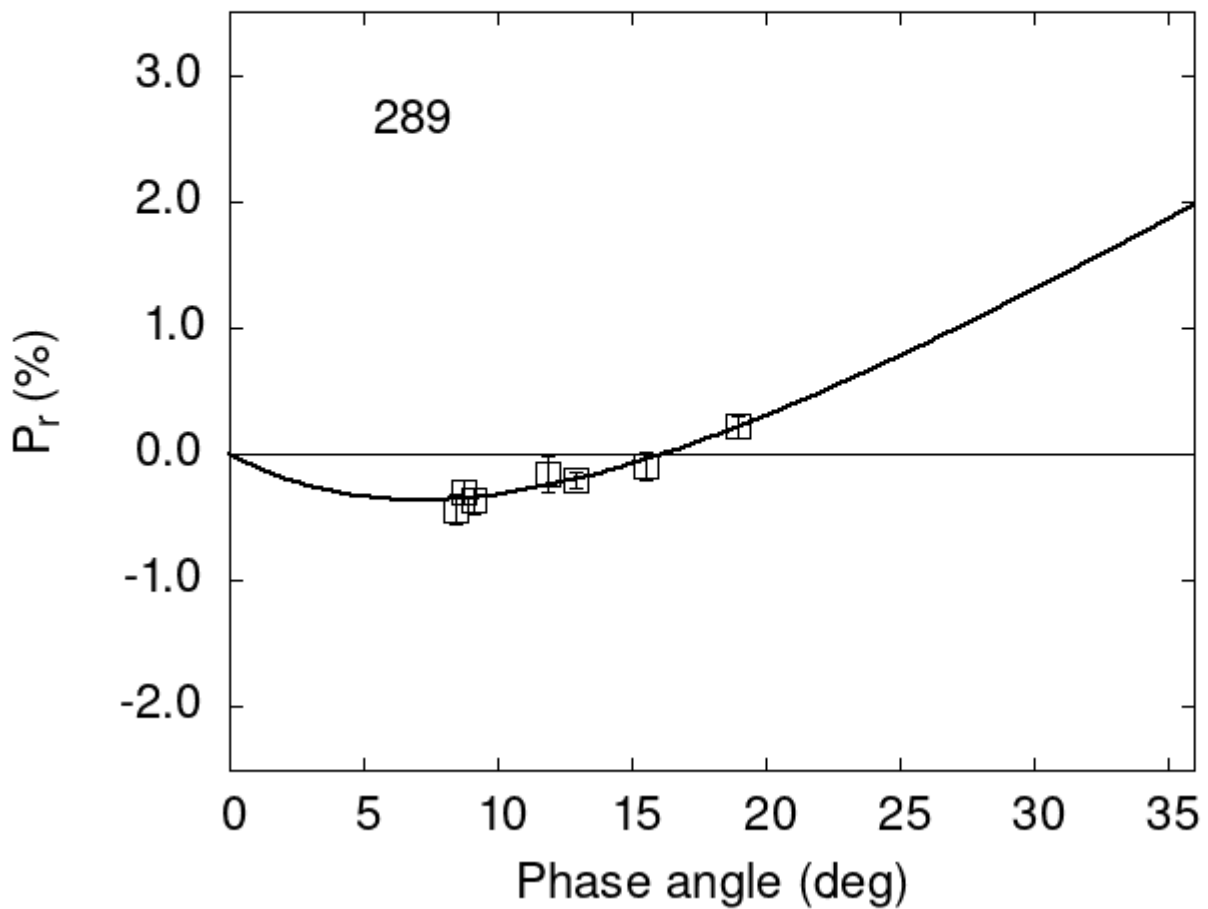# Catalogue of Asteroid Polarization Curves

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.

```
289   8.71 -0.30 0.09 V f
289   9.11 -0.37 0.10 V f
289  11.84 -0.16 0.14 V f
289  15.57 -0.09 0.11 V f
289  18.95  0.22 0.09 V f
289   8.42 -0.44 0.12 V a
```

```
    289 12.90 -0.20 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
#    2.5866    0.2442   10.8359    1.4654    0.1240    0.0111
#
#     Phmin    err    Pmin     err   Ph0     err    k       err
#      7.09   1.50  -0.363   0.185 16.16   0.57 0.0703  0.0127
```