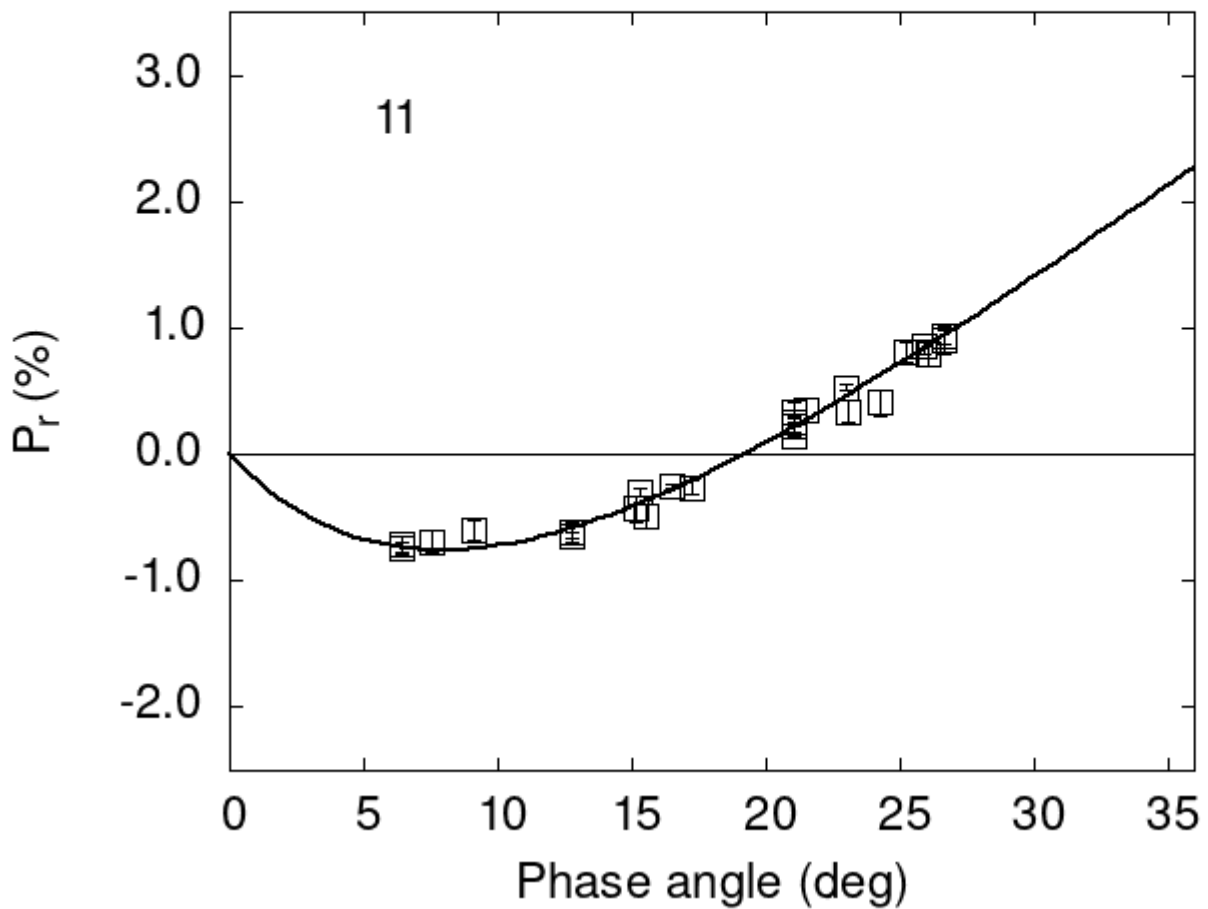# Catalogue of Asteroid Polarization Curves

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.

```
11   9.12 -0.60 0.08 V f
11 12.75 -0.62 0.08 V f
11 15.19 -0.43 0.10 V f
11 15.57 -0.49 0.09 V f
11 21.08  0.33 0.08 V f
11 21.08  0.23 0.08 R f
```

```
11 21.51   0.35 0.09 V f
11 23.09   0.34 0.09 V f
11 24.26   0.41 0.10 V f
11 26.07   0.79 0.09 V f
11  7.51 -0.69 0.09 G a
11 25.25   0.81 0.08 G a
11 25.95   0.85 0.06 G a
11 22.99   0.53 0.03 G a
11 17.23 -0.26 0.05 G a
11 16.51 -0.25 0.02 G a
11  6.40 -0.74 0.05 V a
11  6.40 -0.71 0.06 R a
11 26.70   0.93 0.06 V a
11 26.70   0.90 0.11 R a
11 21.08   0.25 0.03 V a
11 21.08   0.15 0.02 R a
11 12.75 -0.64 0.02 V a
11 15.30 -0.30 0.03 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
#   3.3441    0.2966   8.8299    0.8194   0.1543    0.0093
#
#    Phmin    err    Pmin     err   Ph0    err    k       err
#     7.93   0.95  -0.758   0.222 19.21   0.36 0.1113  0.0111
```