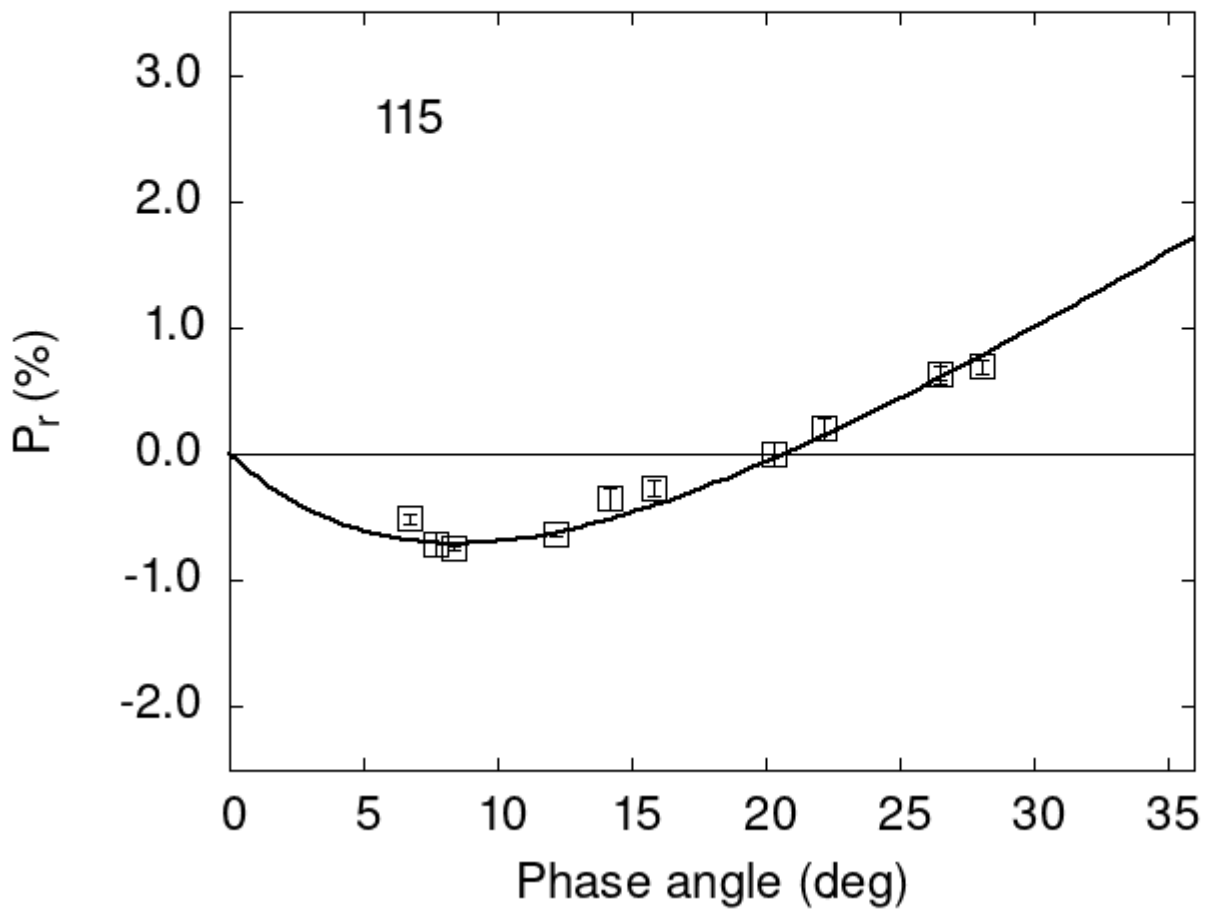# Catalogue of Asteroid Polarization Curves

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.

```
115   7.73 -0.71 0.09 V f
115 14.20 -0.35 0.09 V f
115 22.21  0.20 0.09 V f
115 12.14 -0.63 0.01 V a
115  8.34 -0.74 0.02 G a
115  6.70 -0.51 0.04 V a
```

```
115 26.50   0.64 0.09 V a
115 26.50   0.64 0.06 R a
115 28.10   0.69 0.06 V a
115 15.80  -0.27 0.06 V a
115 20.30   0.00 0.09 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
#    2.9776    0.2932   9.1700    0.9143    0.1287    0.0092
#
#    Phmin    err    Pmin     err   Ph0     err    k       err
#     8.49   1.12  -0.705   0.222 20.70    0.42 0.0948  0.0107
```