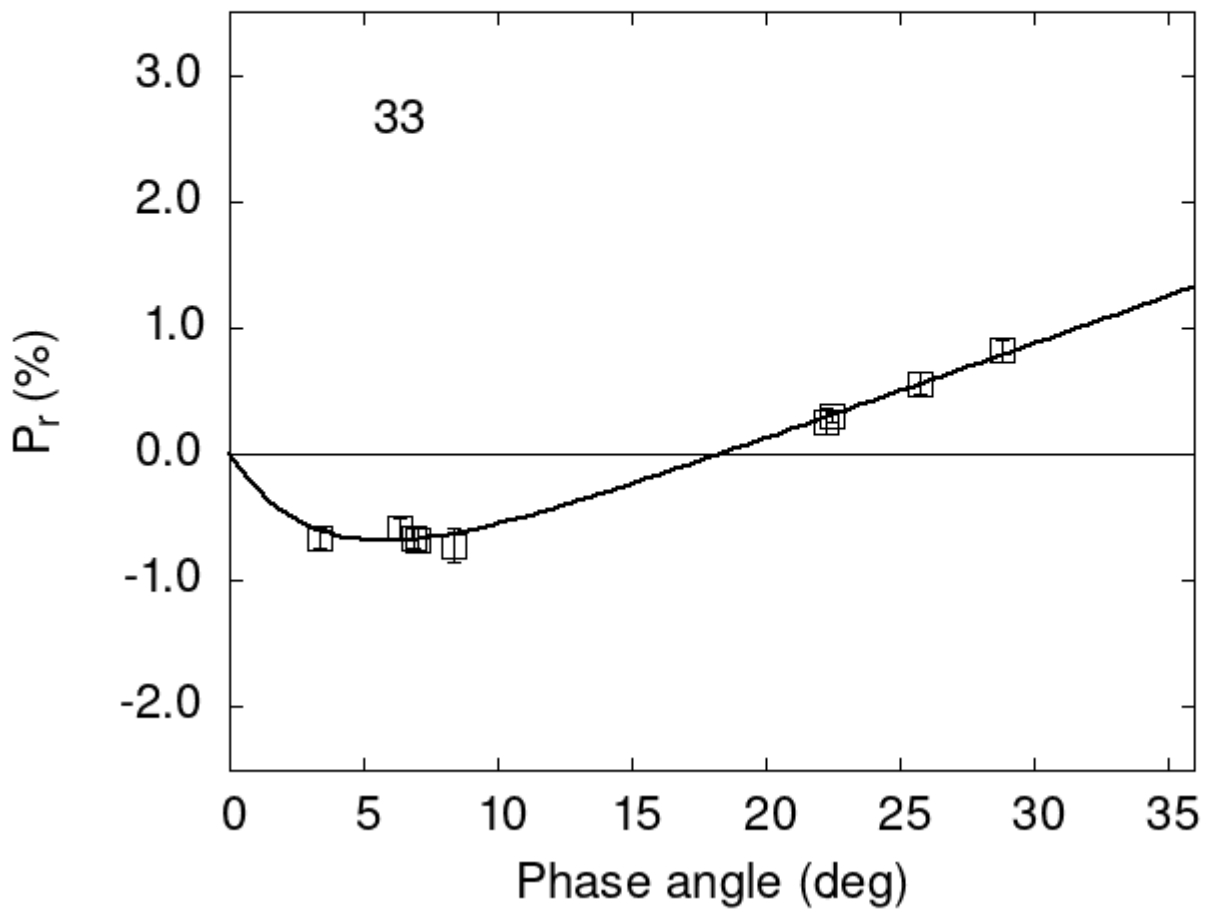# Catalogue of Asteroid Polarization Curves

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.

```
33   3.39 -0.66 0.08 V f
33   6.32 -0.59 0.08 V f
33   6.87 -0.66 0.08 V f
33   7.00 -0.68 0.09 V f
33   8.40 -0.72 0.14 V f
33  22.27  0.26 0.10 V f
```

```
33 25.80  0.56 0.09 V f
33 28.82  0.82 0.09 V f
33 22.50  0.30 0.04 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
#    1.3844    0.2425    3.5125    1.0990    0.0751    0.0097
#
#     Phmin   err   Pmin    err   Ph0    err    k       err
#      5.82  1.05 -0.683  0.246 18.32  0.55 0.0730 0.0101
```