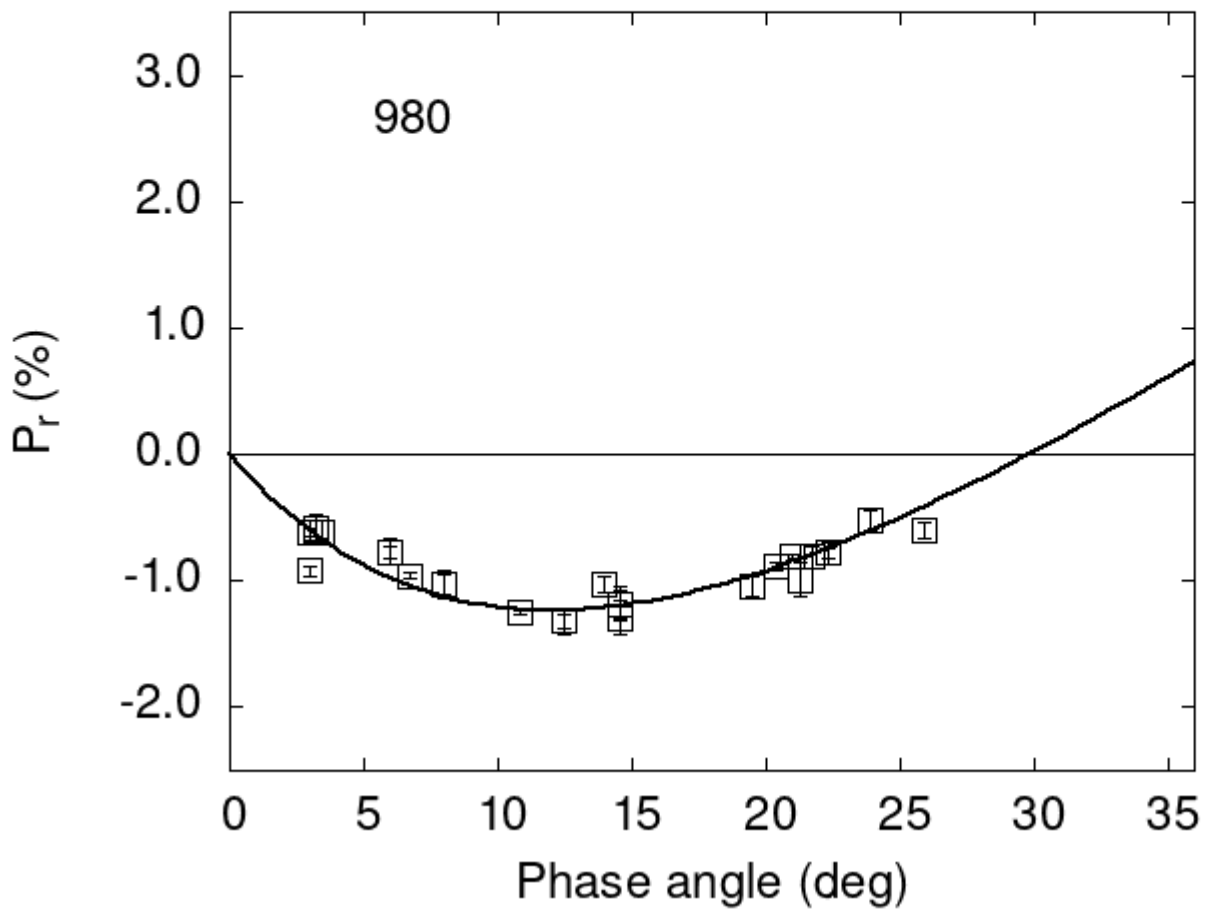# Catalogue of Asteroid Polarization Curves

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.

```
980   3.02 -0.61 0.09 V f
980   3.22 -0.58 0.11 V f
980   3.40 -0.61 0.09 V f
980   6.01 -0.77 0.10 V f
980   7.98 -1.03 0.11 V f
980  12.48 -1.32 0.10 V f
```

```
980 14.54 -1.18 0.13 V f
980 14.55 -1.29 0.14 V f
980 19.47 -1.04 0.08 V f
980 21.27 -0.99 0.14 V f
980 21.77 -0.81 0.09 V f
980 22.30 -0.78 0.09 V f
980 23.92 -0.52 0.08 V f
980  6.70 -0.96 0.02 V a
980 10.80 -1.25 0.01 V a
980 21.00 -0.81 0.02 V a
980 25.90 -0.60 0.07 V a
980 14.00 -1.03 0.06 V a
980 20.40 -0.89 0.03 V a
980  3.02 -0.61 0.03 V a
980  3.00 -0.92 0.04 V a
980  6.01 -0.77 0.05 V a
980  7.98 -1.03 0.08 V a
980 12.48 -1.32 0.06 V a
980 14.54 -1.18 0.11 V a
980 22.30 -0.78 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
#    4.7325    0.3883   12.1096   0.7865    0.1450    0.0109
#
#     Phmin    err    Pmin    err   Ph0    err    k       err
#     12.00   1.35  -1.235  0.299  29.85  0.36  0.1118  0.0117
```