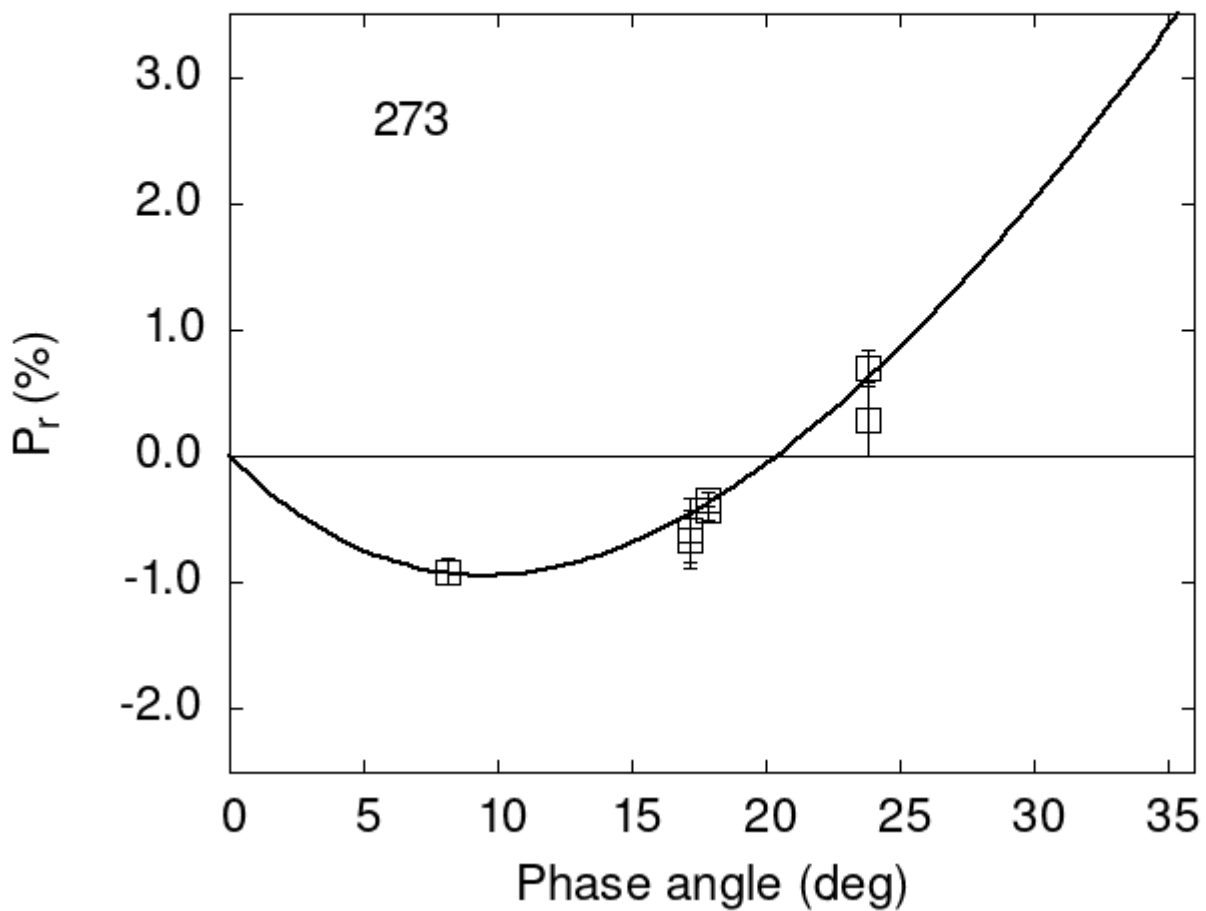# Catalogue of Asteroid Polarization Curves

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.

```
273   8.14 -0.91 0.10 V f
273 17.87 -0.42 0.09 V f
273 23.86  0.29 0.29 V f
273 23.86  0.70 0.14 R f
273 17.87 -0.34 0.06 V a
273 23.86  0.29 0.29 V b
```

```
273 23.86  0.70 0.14 R b
273 17.16 -0.58 0.25 V b
273 17.16 -0.66 0.23 R b
```

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
#   16.3511   0.7981  24.6815   1.5150    0.4505   0.0177
#
#     Phmin    err    Pmin     err  Ph0     err    k       err
#      9.52   1.80  -0.944   0.403 20.42   0.25 0.1609 0.0228
```