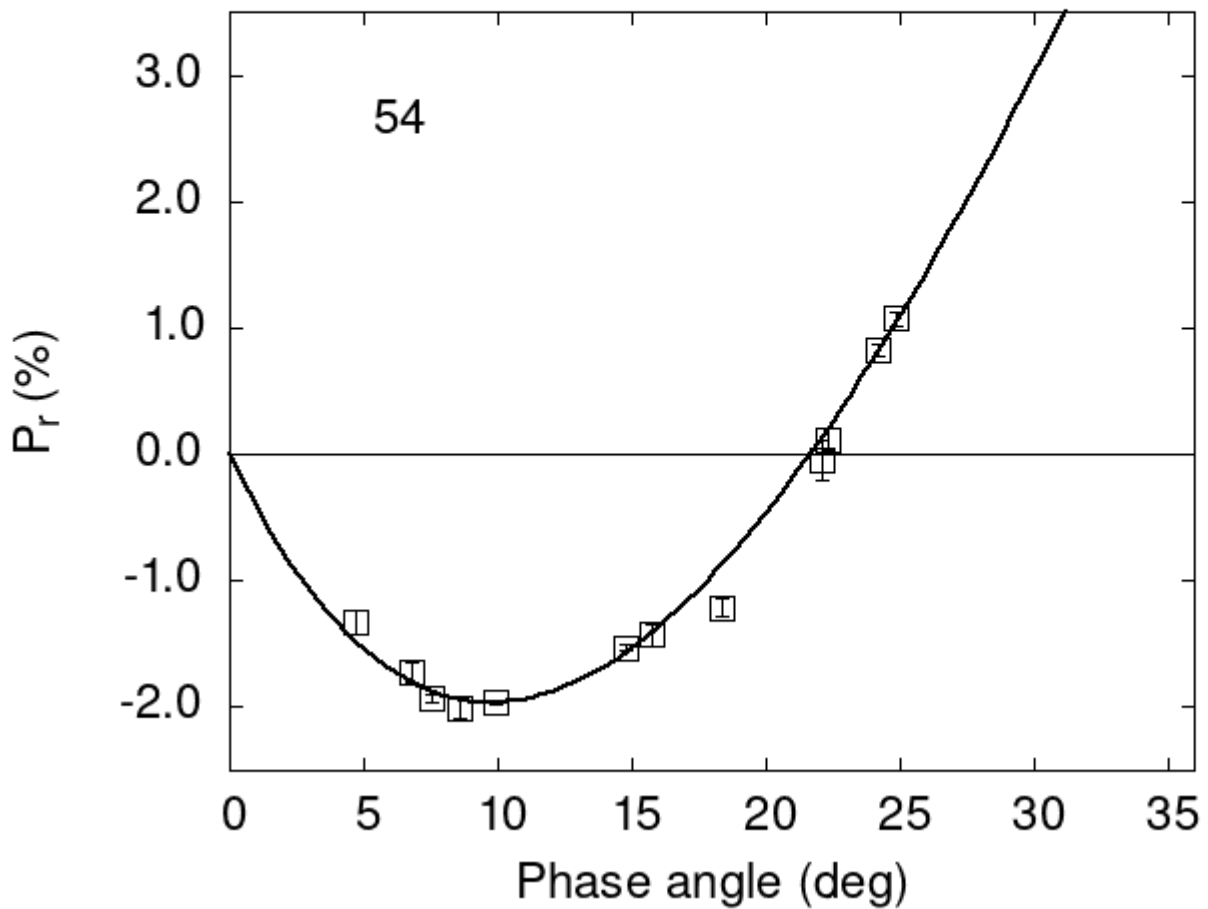# Catalogue of Asteroid Polarization Curves

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.

```
54   4.74 -1.33 0.09 V f
54   6.79 -1.72 0.08 V f
54  15.73 -1.43 0.09 V f
54  22.33  0.12 0.09 V f
54   8.59 -2.01 0.08 G a
54   7.56 -1.93 0.03 G a
```

```
54   9.96 -1.96 0.02 V a
54 14.81 -1.53 0.02 G a
54 22.09 -0.05 0.16 G a
54 24.22  0.82 0.05 G a
54 24.86  1.07 0.05 G a
54 18.40 -1.21 0.07 V h
```

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
#    18.8521   0.8203   17.9075   0.5307    0.6104    0.0177
#
#     Phmin    err    Pmin     err   Ph0     err    k       err
#      9.76   0.97  -1.963   0.424  21.67   0.13 0.2965  0.0225
```