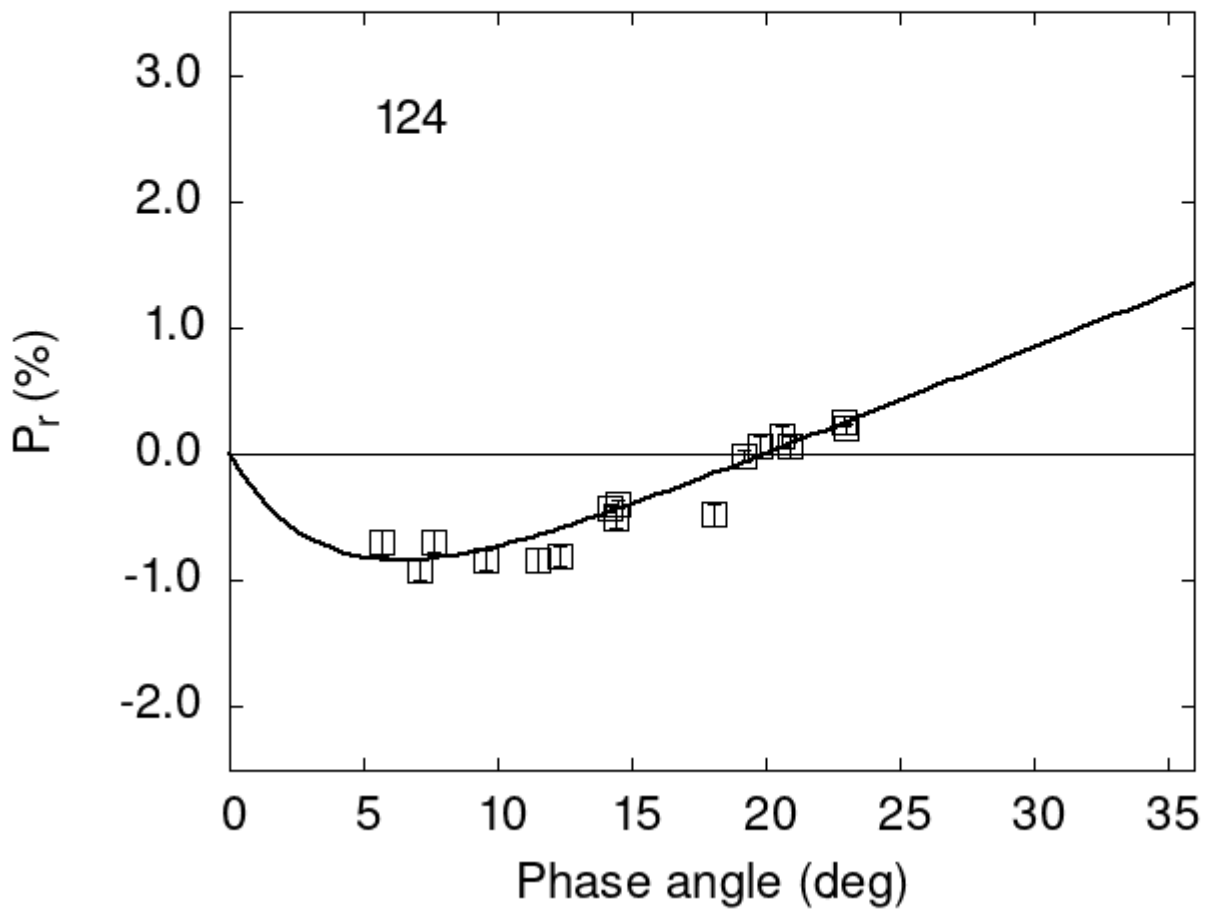# Catalogue of Asteroid Polarization Curves

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.

```
124   5.69 -0.70 0.10 V f
124   7.10 -0.92 0.08 V f
124   9.54 -0.84 0.08 V f
124  11.53 -0.84 0.09 V f
124  12.29 -0.81 0.08 V f
124  14.45 -0.50 0.09 V f
```

```
124 18.05 -0.48 0.09 V f
124 19.77  0.06 0.09 V f
124 20.59  0.14 0.08 V f
124 20.93  0.06 0.09 V f
124 19.20 -0.01 0.05 V a
124 14.50 -0.39 0.03 V a
124 14.20 -0.43 0.03 V a
124 22.90  0.26 0.04 V a
124 23.00  0.20 0.04 V a
124  7.60 -0.69 0.09 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
#    1.7040    0.1318    3.8436    0.7435    0.0848    0.0061
#
#    Phmin    err    Pmin     err   Ph0     err    k       err
#     6.36   0.63  -0.839   0.154 19.98   0.49 0.0823  0.0064
```