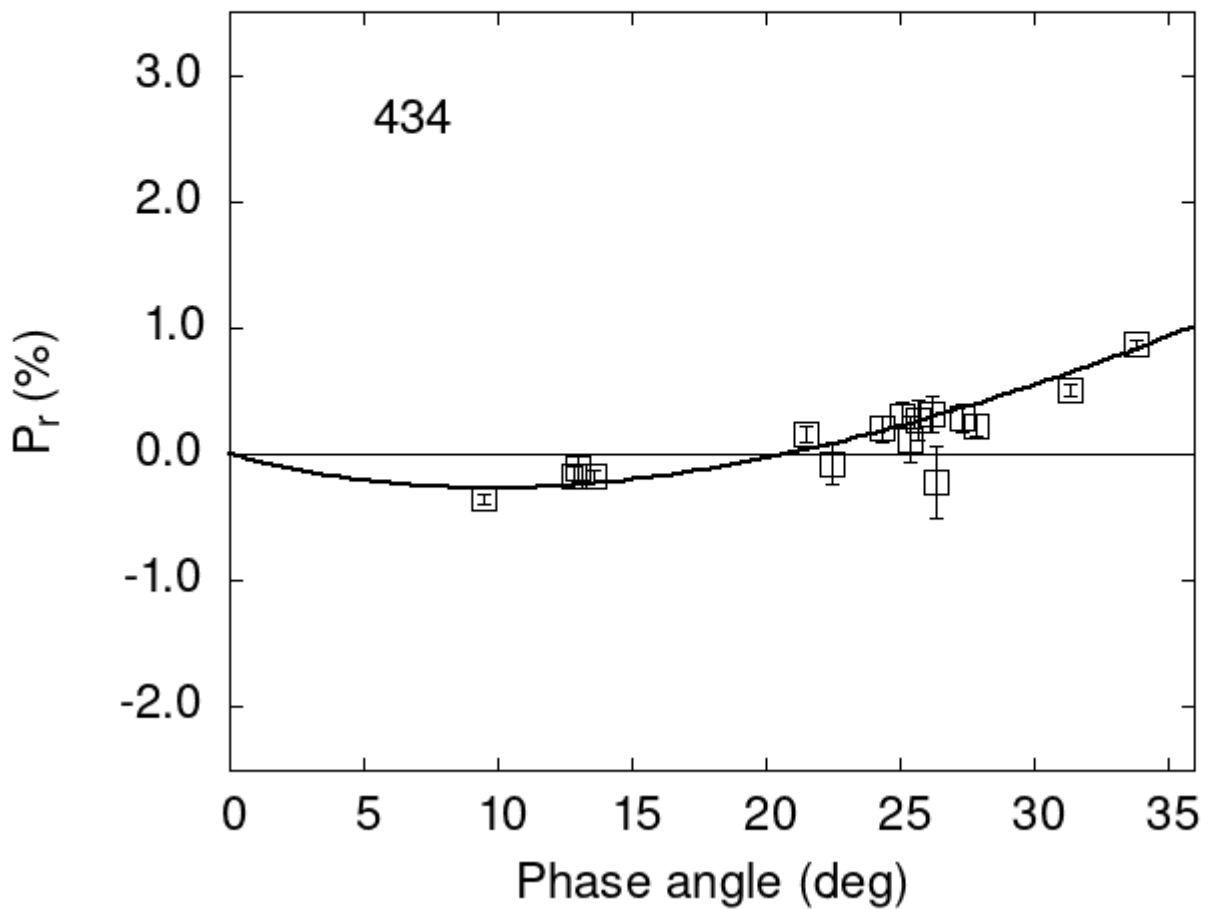# Catalogue of Asteroid Polarization Curves

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.

```
434 12.83 -0.18 0.09 V f
434 12.99 -0.11 0.11 V f
434 24.38  0.20 0.10 V f
434 25.12  0.31 0.10 V f
434 25.42  0.12 0.18 V f
434 26.21  0.32 0.14 V f
```

```
434 26.35 -0.22 0.28 V f
434 27.36  0.28 0.11 V f
434 27.89  0.23 0.09 V f
434 13.60 -0.17 0.05 V a
434 33.80  0.87 0.03 V a
434  9.50 -0.35 0.04 V a
434 25.70  0.27 0.16 V a
434 31.40  0.51 0.05 V a
434 21.50  0.16 0.06 V a
434 22.50 -0.07 0.16 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
#    5.0882    0.1867   26.5848   0.9228    0.1328    0.0041
#
#     Phmin    err    Pmin     err  Ph0    err    k       err
#      9.72   1.40  -0.268   0.083 20.79  0.89 0.0452 0.0052
```