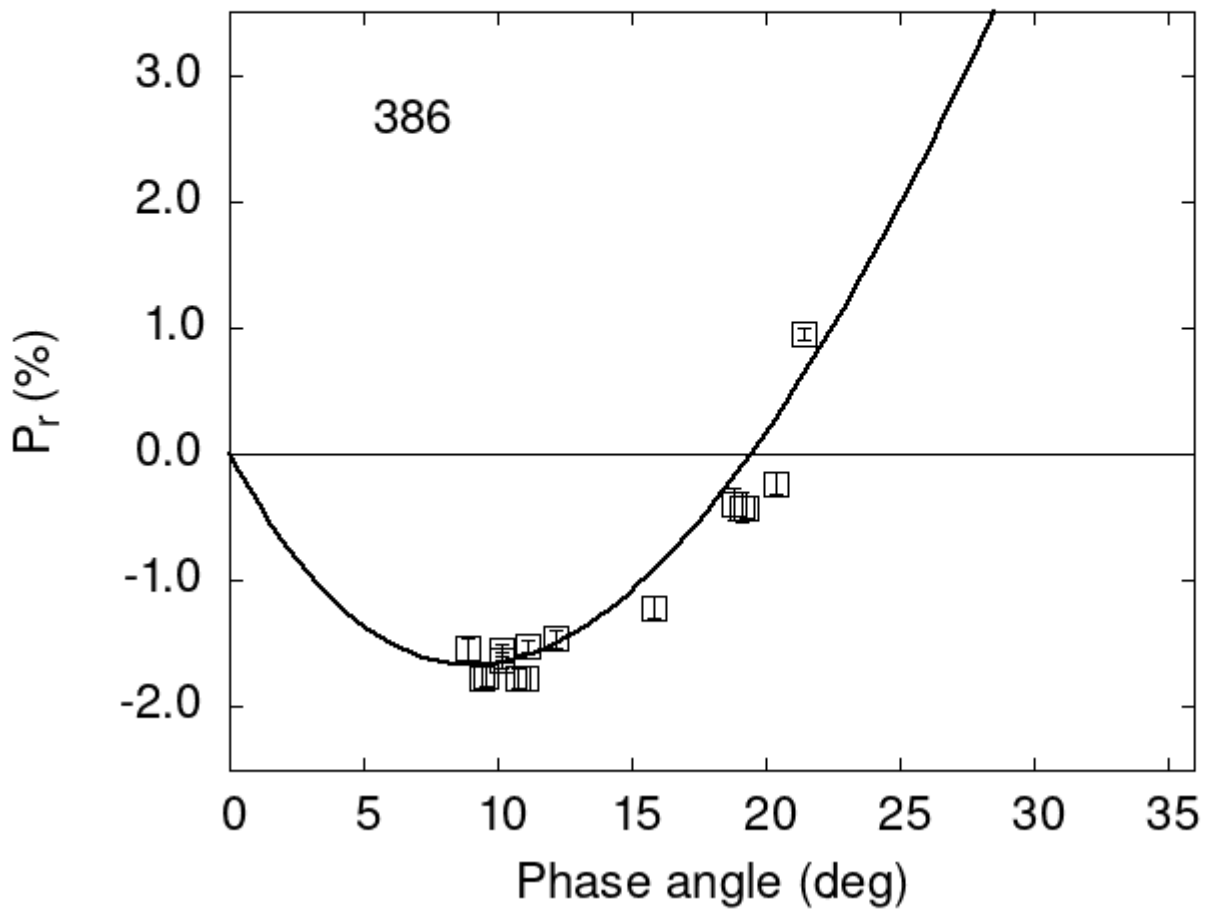# Catalogue of Asteroid Polarization Curves

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.

```
386   8.89 -1.54 0.09 V f
386   9.40 -1.77 0.10 V f
386   9.54 -1.75 0.08 V f
386  10.72 -1.77 0.08 V f
386  11.05 -1.77 0.10 V f
386  15.84 -1.21 0.08 V f
```

```
386 18.83 -0.39 0.13 V f
386 19.10 -0.42 0.12 V f
386 19.30 -0.42 0.09 V f
386 20.41 -0.23 0.09 V f
386 10.19 -1.63 0.07 V f
386 10.19 -1.55 0.05 R f
386 12.20 -1.46 0.07 V a
386 11.10 -1.52 0.05 V a
386 21.40  0.95 0.05 V a
386 10.19 -1.63 0.07 V b
386 10.19 -1.55 0.05 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
#    26.4111    0.4961   22.2604   0.3638   0.7909    0.0105
#
#     Phmin    err    Pmin    err   Ph0    err    k      err
#      9.03   0.56  -1.665  0.223  19.47  0.14 0.2960 0.0140
```