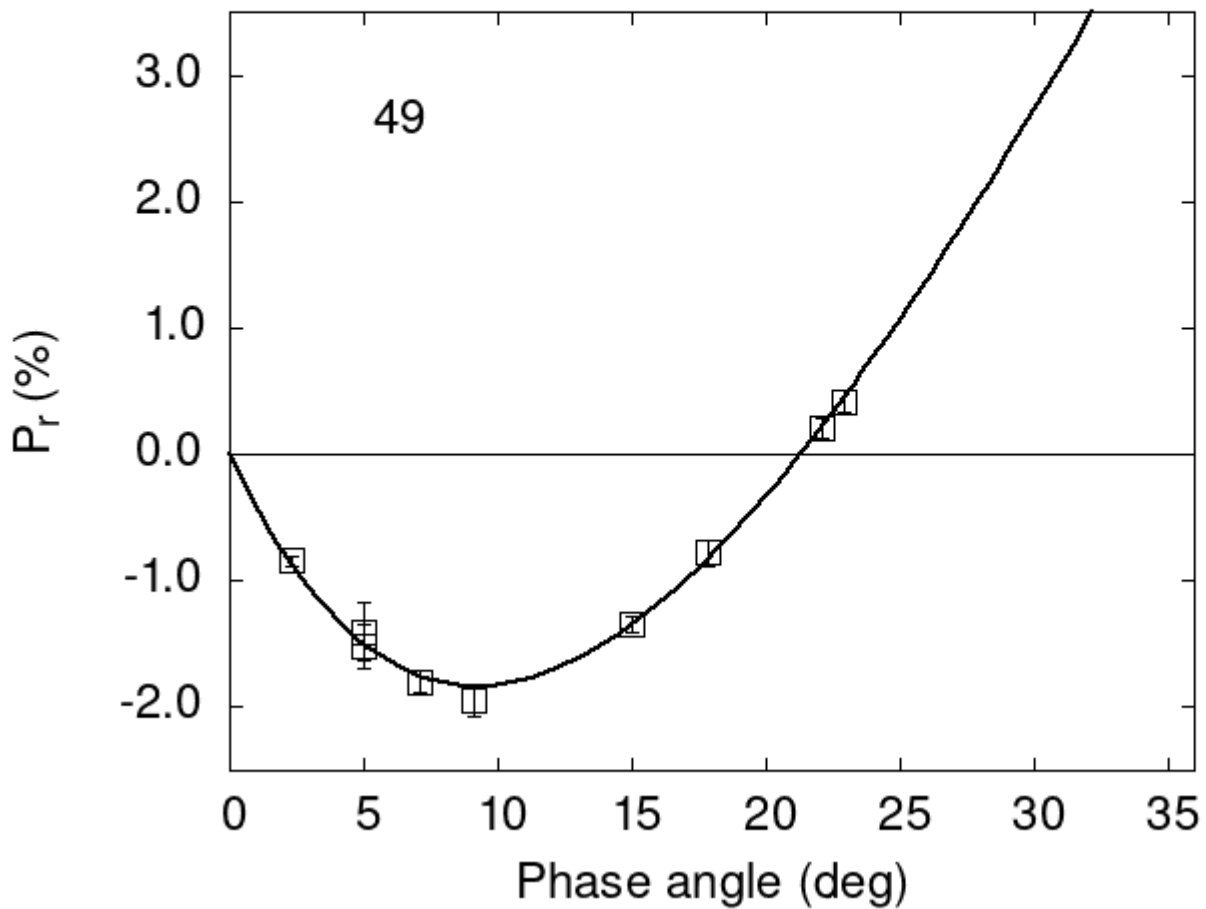# Catalogue of Asteroid Polarization Curves

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.

```
49   9.14 -1.95 0.12 V f
49 17.82 -0.78 0.10 V f
49 22.13  0.21 0.08 V f
49  5.00 -1.40 0.23 V a
49  5.00 -1.52 0.18 R a
49 22.90  0.42 0.08 V a
```

```
49   2.30 -0.84 0.04 V a
49 15.00 -1.34 0.06 V a
49   7.10 -1.80 0.09 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
#   11.7161    1.0015   13.1784    0.8490    0.4406    0.0273
#
#    Phmin    err    Pmin     err   Ph0     err    k       err
#     9.25   1.41  -1.834   0.623 21.32   0.15 0.2642 0.0319
```