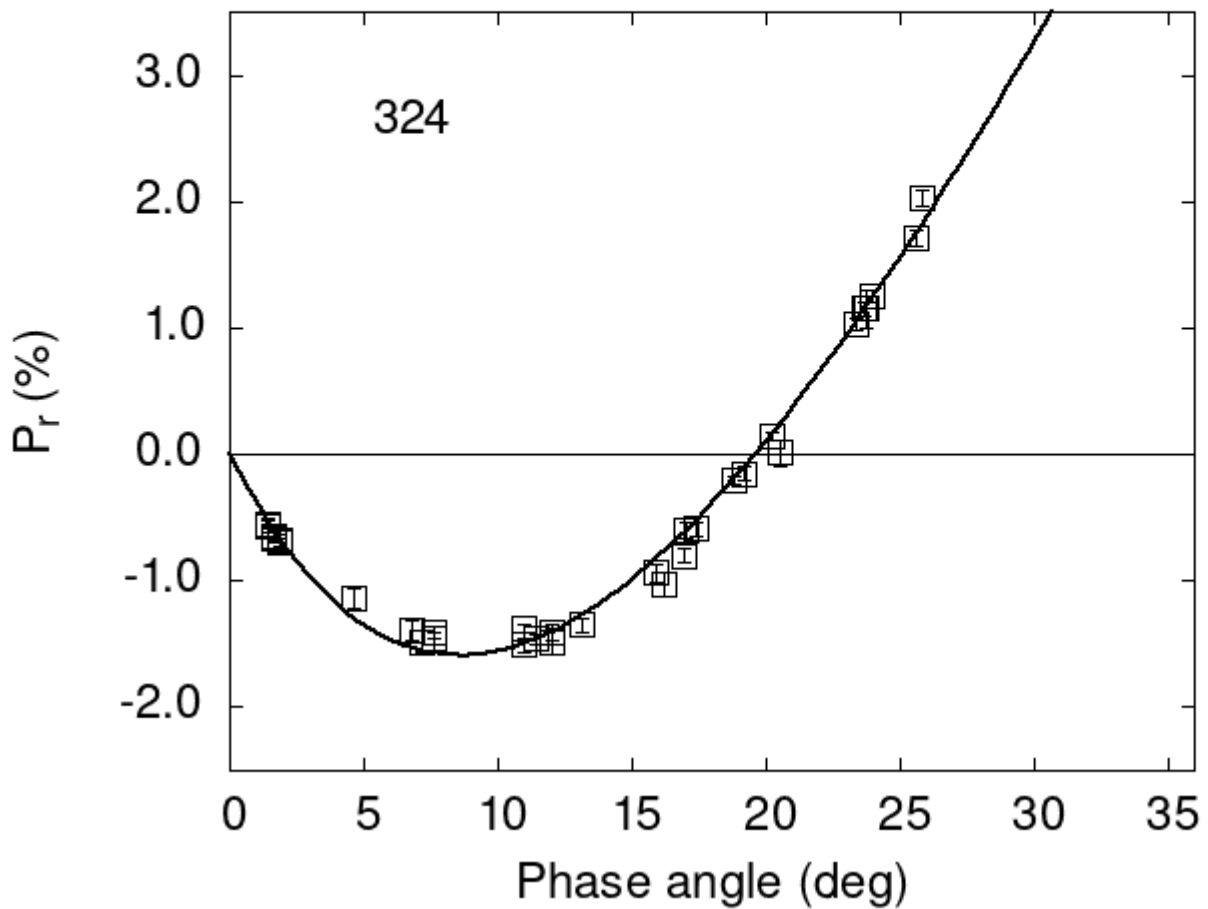# Catalogue of Asteroid Polarization Curves

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.

```
324   4.61 -1.14 0.08 V f
324   6.82 -1.39 0.08 V f
324   7.18 -1.48 0.09 V f
324  11.99 -1.48 0.10 V f
324   1.40 -0.57 0.05 V f
324   1.40 -0.55 0.04 R f
```

```
324   1.63 -0.65 0.03 V f
324   1.63 -0.67 0.03 R f
324   1.90 -0.68 0.05 V f
324   1.90 -0.69 0.03 R f
324 24.00  1.25 0.05 V f
324 23.70  1.15 0.05 V f
324 23.40  1.03 0.04 V f
324 20.24  0.15 0.03 G a
324 20.53  0.01 0.10 G a
324 23.75  1.15 0.15 G a
324 25.87  2.03 0.06 G a
324 25.61  1.71 0.06 G a
324 13.16 -1.35 0.06 G a
324 16.98 -0.80 0.06 G a
324 19.22 -0.15 0.05 G a
324  7.60 -1.41 0.05 R a
324  7.60 -1.46 0.05 V a
324 11.00 -1.51 0.06 V a
324 11.00 -1.38 0.03 R a
324 16.20 -1.03 0.09 V a
324 17.40 -0.59 0.06 V a
324 11.40 -1.46 0.04 V a
324 18.80 -0.20 0.03 V a
324 15.90 -0.94 0.07 V a
324 11.99 -1.41 0.06 V a
324 17.00 -0.60 0.07 V a
324  1.40 -0.57 0.05 V b
324  1.40 -0.55 0.04 R b
324  1.63 -0.65 0.03 V b
324  1.63 -0.67 0.03 R b
324  1.90 -0.68 0.05 V b
324  1.90 -0.69 0.03 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
#   11.1747   0.8151   13.0214   0.7167   0.4432   0.0220
#
#    Phmin    err    Pmin    err   Ph0    err    k       err
#     8.60   1.17  -1.590  0.485 19.62  0.16 0.2530  0.0265
```