Catalogue of Asteroid Polarization Curves
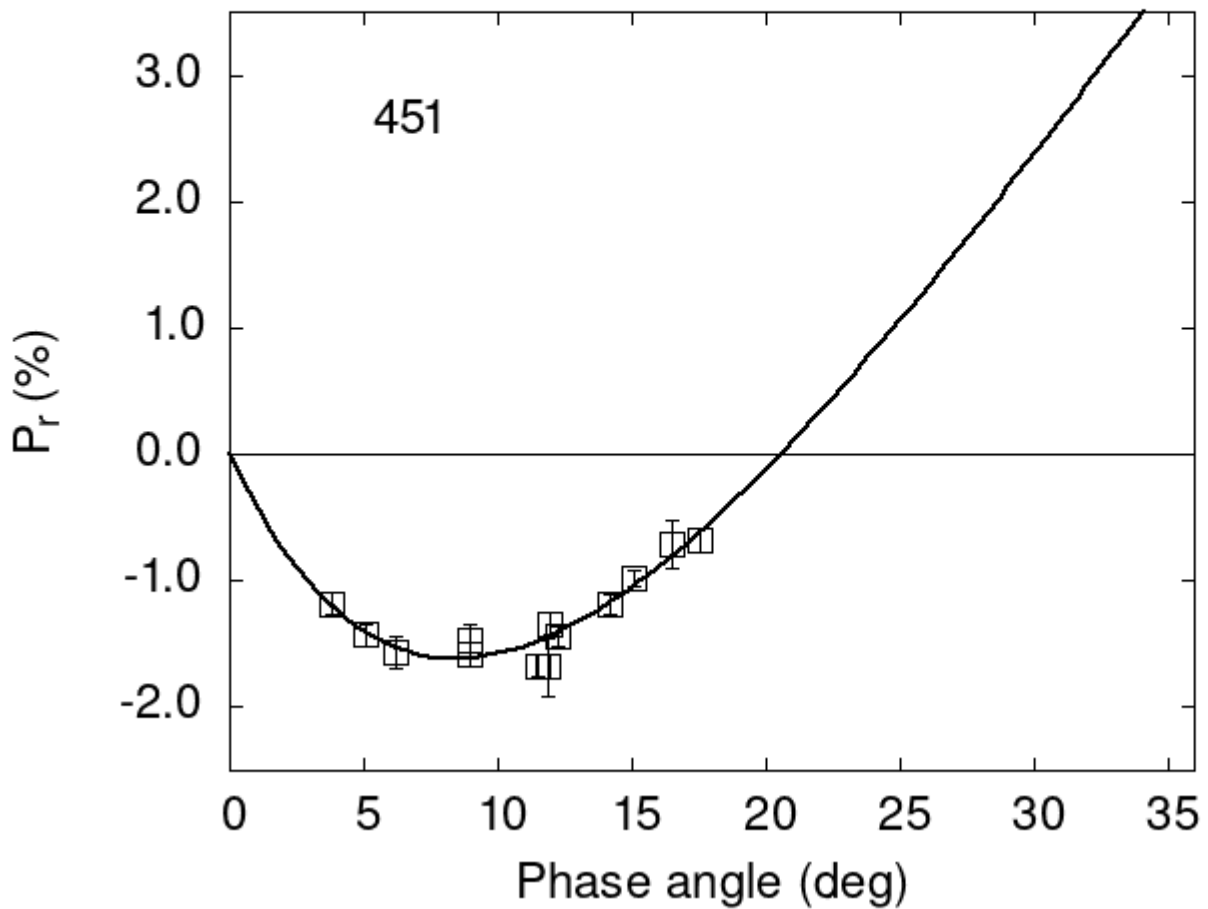
Gil-Hutton (2023)

Polarimetric data:

The columns list the object number, the phase angle (degrees), P_r (%), its error, the filter used, and the reference code.

```
451   3.81 -1.18 0.09 V f
451   6.21 -1.57 0.13 V f
451 11.48 -1.67 0.09 V f
451 11.88 -1.68 0.23 V f
451 11.97 -1.34 0.09 V f
451 12.22 -1.44 0.08 V f
```

```
451 14.17 -1.19 0.08 V f
451 14.19 -1.18 0.09 V f
451 17.58 -0.68 0.09 V f
451 15.10 -0.98 0.06 V a
451  8.93 -1.58 0.09 V b
451  8.93 -1.47 0.13 R b
451  5.10 -1.43 0.09 V h
451 16.50 -0.71 0.19 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
#    6.9303    0.4753    9.2155    0.5235    0.3008    0.0198
#
#     Phmin    err    Pmin      err   Ph0     err    k        err
#      8.44   0.88  -1.618    0.361  20.55   0.18  0.2200   0.0213
```