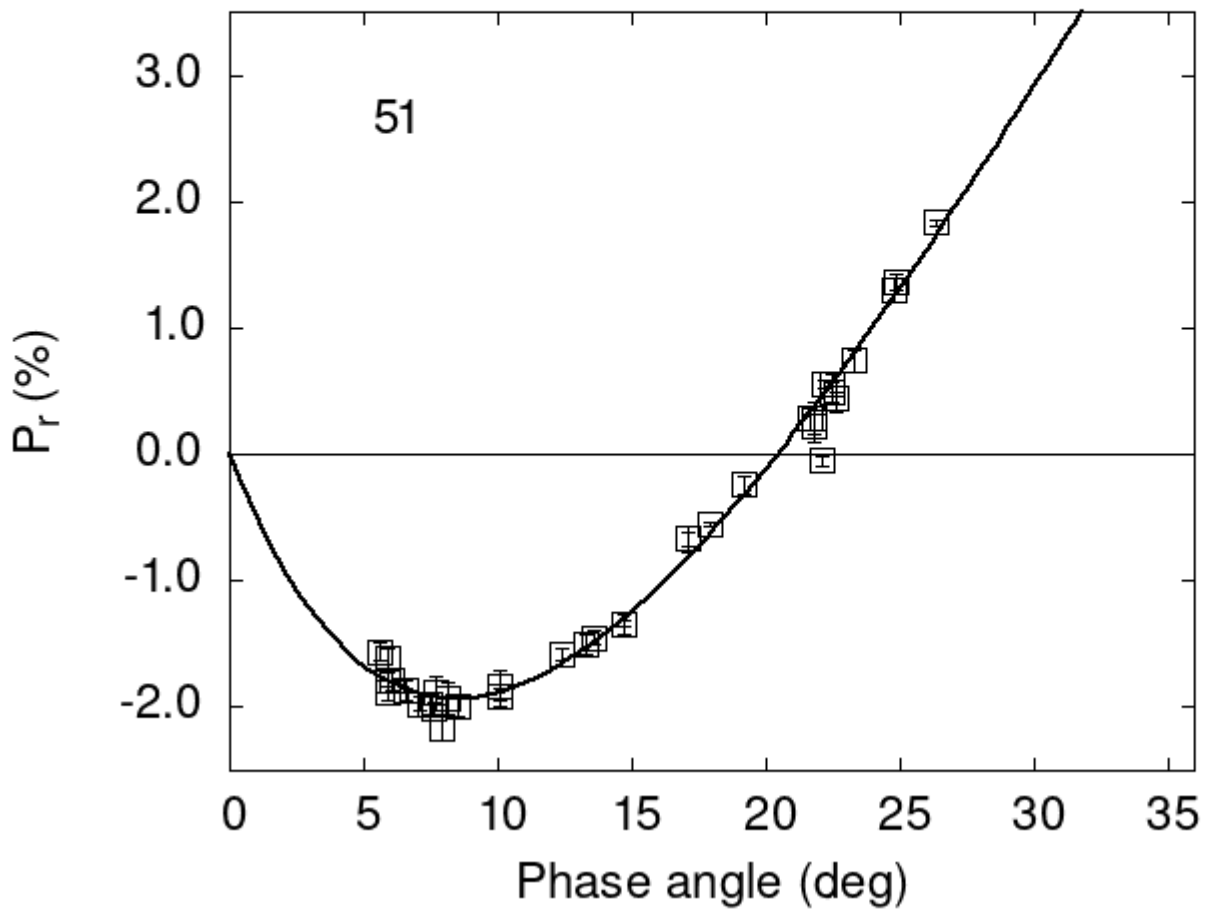


# Catalogue of Asteroid Polarization Curves

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.

51	5.93	-1.61	0.08	V	f
51	6.05	-1.79	0.08	V	f
51	6.58	-1.86	0.08	V	f
51	14.72	-1.34	0.08	V	f
51	17.12	-0.67	0.10	V	f
51	21.64	0.28	0.09	V	f

```

51 22.45  0.49 0.08 V f
51 22.49  0.55 0.09 V f
51 22.64  0.44 0.10 V f
51 23.28  0.74 0.09 V f
51 24.76  1.30 0.09 V f
51 17.90 -0.55 0.02 V f
51 19.20 -0.24 0.07 V f
51 12.42 -1.58 0.05 V a
51  8.13 -1.93 0.12 G a
51  7.66 -1.89 0.13 G a
51  8.48 -2.00 0.07 G a
51  5.90 -1.89 0.06 V a
51  5.90 -1.78 0.06 R a
51  7.90 -2.16 0.11 V a
51  7.60 -2.01 0.05 V a
51  7.50 -1.97 0.09 V a
51  7.10 -1.97 0.06 V a
51 10.08 -1.83 0.12 V a
51 10.08 -1.92 0.07 R a
51 24.90  1.36 0.06 V a
51 21.80  0.22 0.13 V a
51 21.80  0.29 0.13 R a
51 22.20  0.55 0.03 V a
51 22.10 -0.05 0.04 V a
51 13.60 -1.45 0.06 V a
51 13.30 -1.50 0.08 V a
51  5.60 -1.56 0.07 V a
51 26.40  1.83 0.03 V a
51 14.72 -1.34 0.02 V a
51 17.12 -0.67 0.06 V a
51 22.64  0.44 0.05 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  $\alpha$  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
#      8.4510     0.3433     9.3332     0.3619     0.3669     0.0107
#
#      Phmin    err   Pmin    err   Ph0    err    k      err
#      8.43    0.47 -1.933  0.253 20.45  0.15 0.2657 0.0124

```