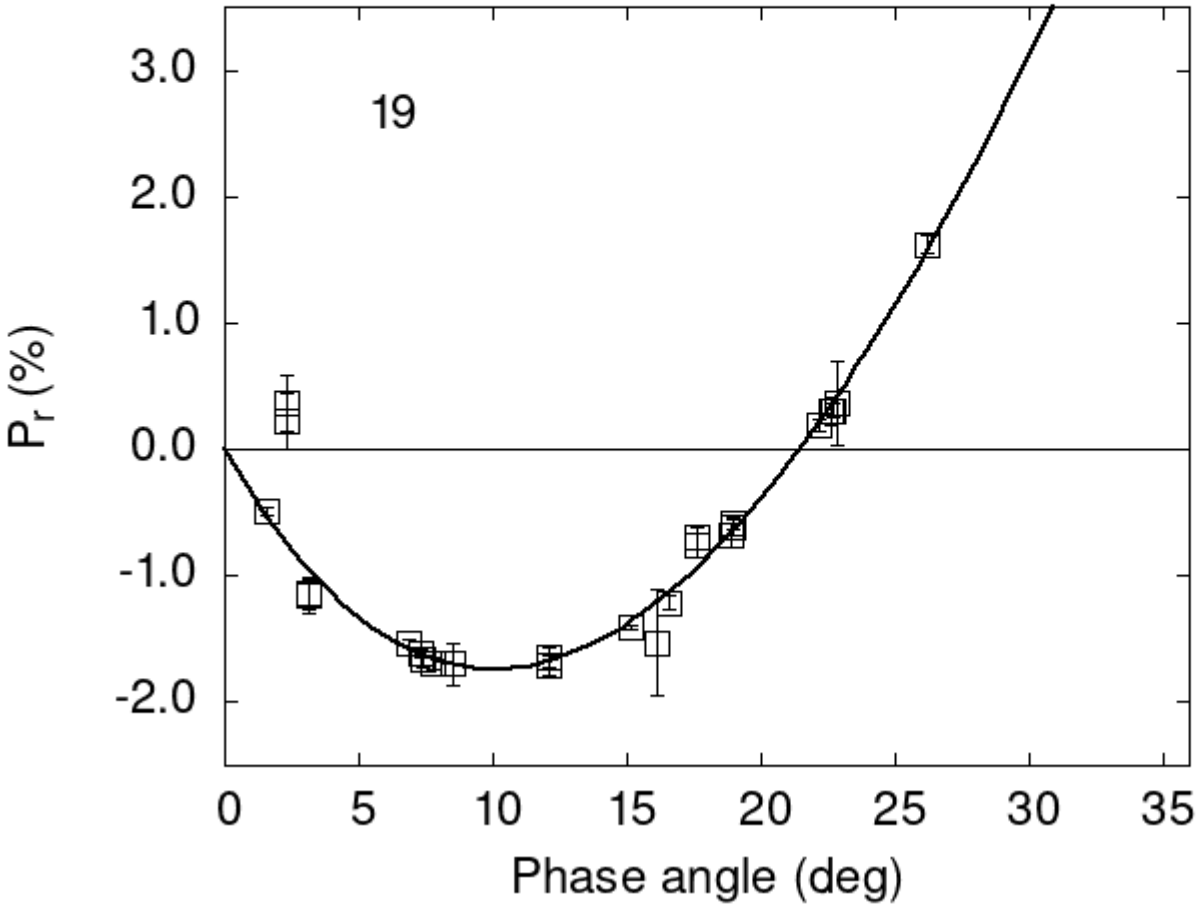
Catalogue of Asteroid Polarization Curves

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.

```
19 18.90 -0.68 0.09 V f
19 22.66  0.30 0.11 V f
19  2.30  0.36 0.22 V f
19  2.30  0.22 0.22 R f
19  3.13 -1.15 0.14 V f
19  3.13 -1.14 0.12 R f
```

```
19  7.36 -1.66 0.07 G a
19  8.51 -1.70 0.16 G a
19 16.13 -1.53 0.42 G a
19 22.82  0.37 0.33 G a
19 22.70  0.31 0.05 G a
19 22.16  0.19 0.05 G a
19 16.58 -1.21 0.06 G a
19  7.77 -1.69 0.05 G a
19  7.29 -1.61 0.03 G a
19  6.85 -1.54 0.03 G a
19  1.54 -0.49 0.03 G a
19 15.17 -1.41 0.02 G a
19 26.19  1.62 0.07 G a
19 19.00 -0.59 0.04 V a
19 19.00 -0.61 0.07 R a
19 17.60 -0.76 0.09 V a
19 17.60 -0.70 0.09 R a
19 12.10 -1.64 0.08 V a
19 12.10 -1.71 0.08 R a
19  2.30  0.36 0.22 V b
19  2.30  0.22 0.22 R b
19  3.13 -1.15 0.14 V b
19  3.13 -1.14 0.12 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
#   33.3595   0.9005  27.6101   0.4870   0.8397   0.0135
#
#     Phmin   err   Pmin    err  Ph0    err    k      err
#     10.05  0.92 -1.739  0.341 21.47  0.14 0.2845 0.0203
```