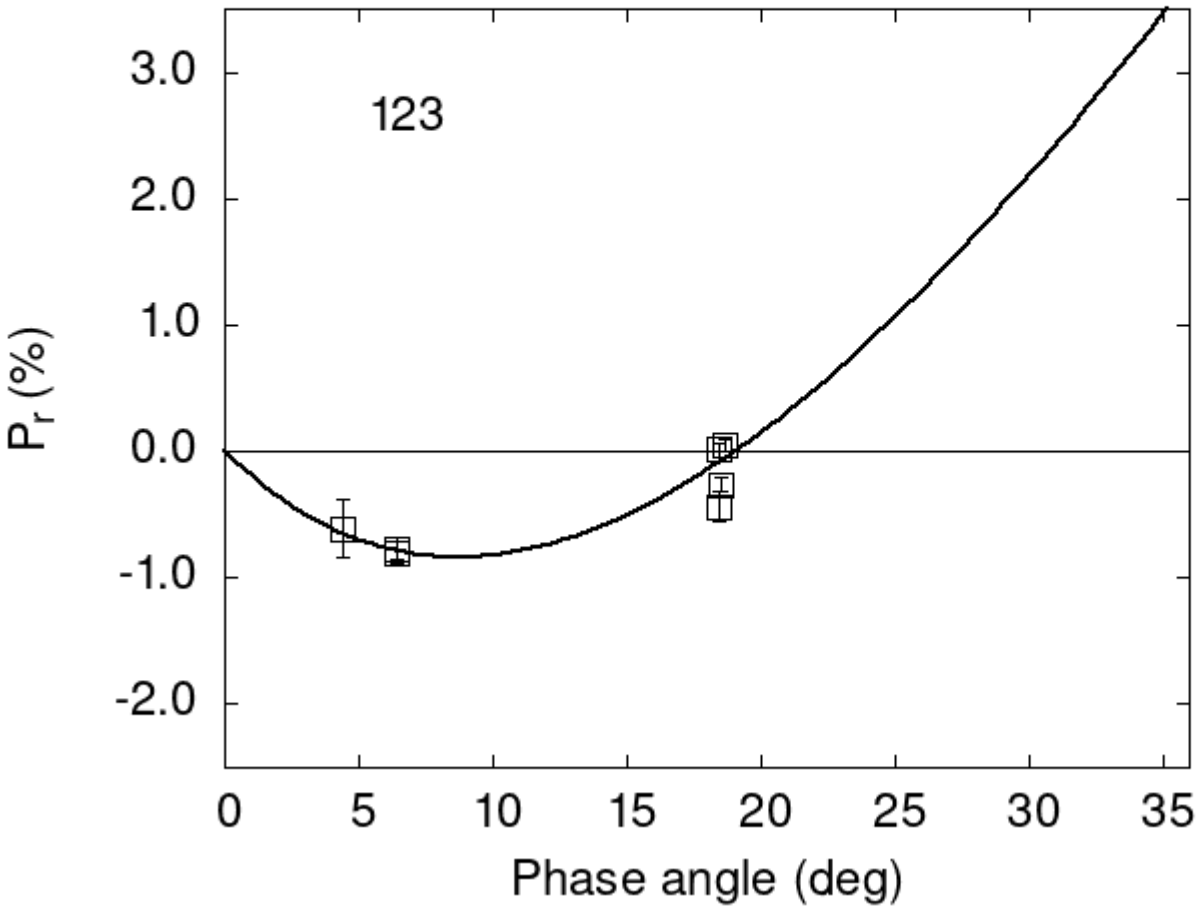
Catalogue of Asteroid Polarization Curves

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.

```
123  6.46 -0.77 0.09 V f
123  6.46 -0.80 0.09 V f
123 18.45 -0.44 0.12 V a
123 18.45  0.01 0.06 R a
123  4.40 -0.61 0.23 V a
123 18.50 -0.26 0.06 V a
```

```
123 18.70  0.05 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 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
#   10.8449   0.1588  19.1718   1.0401   0.3583   0.0102
#
#     Phmin   err   Pmin    err  Ph0    err    k      err
#      8.76  0.83 -0.839  0.201 19.07  0.27 0.1490 0.0107
```