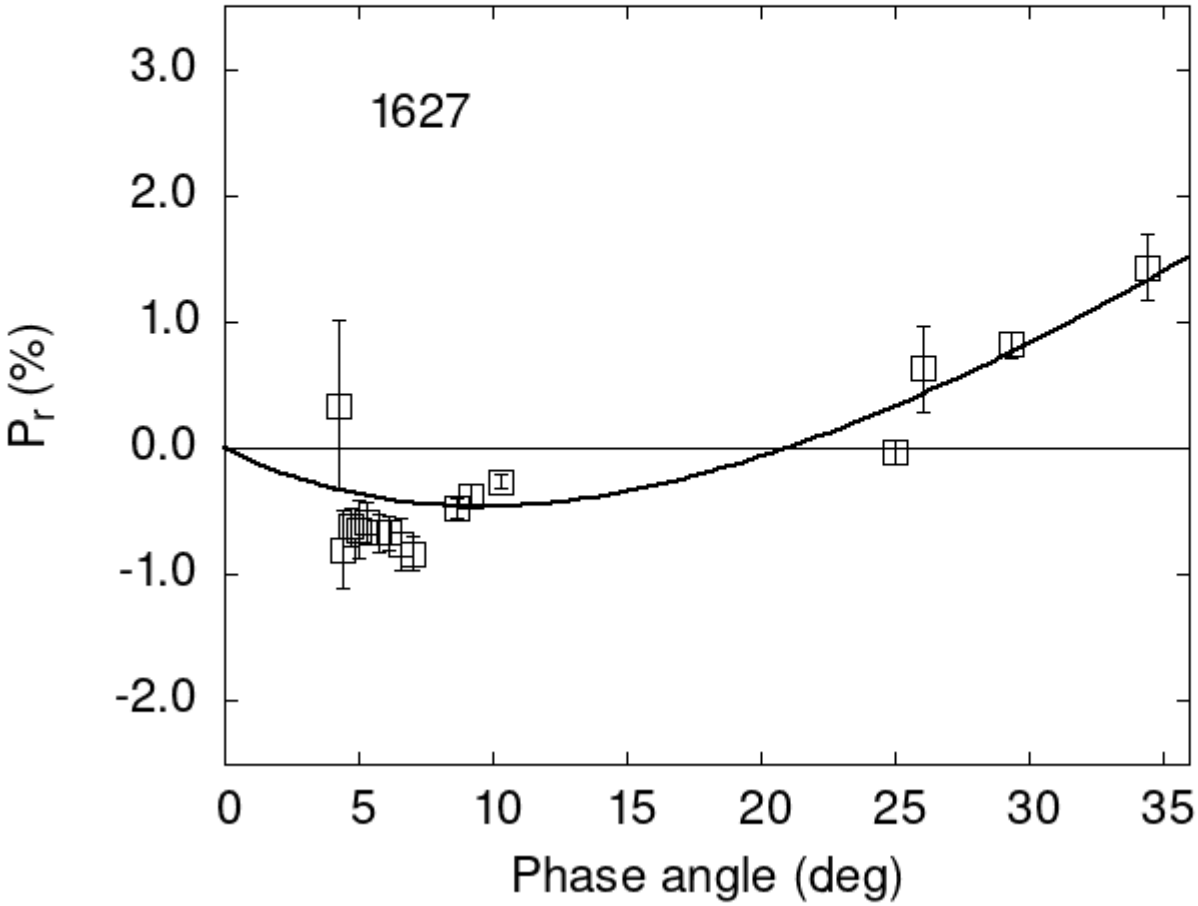
Catalogue of Asteroid Polarization Curves

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.

```
1627  4.24  0.34 0.67 V f
1627  4.44 -0.80 0.31 V f
1627  4.70 -0.62 0.15 V f
1627  4.99 -0.64 0.23 V f
1627  5.34 -0.59 0.17 V f
1627  5.72 -0.67 0.15 V f
```

```
1627  6.13 -0.67 0.14 V f
1627  6.55 -0.76 0.21 V f
1627  7.04 -0.83 0.14 V f
1627 26.09  0.63 0.34 V f
1627 29.37  0.82 0.10 V f
1627 34.40  1.43 0.26 V a
1627 46.90  3.19 0.25 V a
1627 48.60  3.85 0.48 V a
1627 50.10  3.65 0.30 V a
1627 50.60  3.73 0.28 V a
1627 51.10  3.30 0.35 V a
1627 59.30  4.16 0.41 V a
1627 59.60  5.00 0.40 V a
1627 60.50  4.83 0.44 V a
1627 60.70  4.73 0.43 V a
1627 61.40  3.53 1.05 V a
1627 64.10  5.74 0.88 V a
1627  8.70 -0.47 0.08 V a
1627  9.20 -0.38 0.10 V a
1627 10.30 -0.26 0.05 V a
1627 25.00 -0.03 0.10 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
#    5.1319   1.1616  19.1750   3.3003   0.1627   0.0170
#
#     Phmin   err   Pmin    err  Ph0    err    k      err
#      9.54  5.06 -0.459  0.552 20.96  0.55 0.0730 0.0265
```