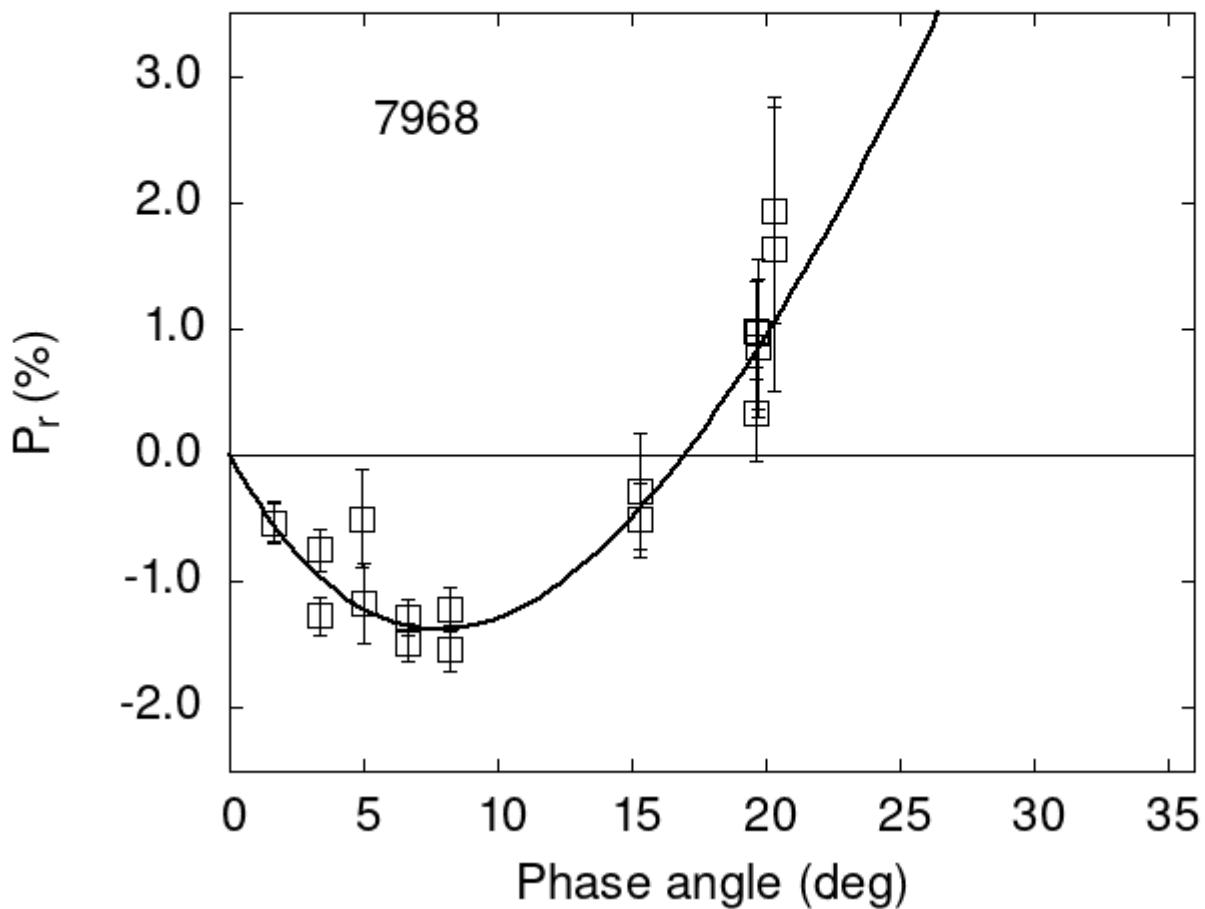


# Catalogue of Asteroid Polarization Curves

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.

|      |       |       |      |   |   |
|------|-------|-------|------|---|---|
| 7968 | 19.69 | 0.96  | 0.59 | R | a |
| 7968 | 19.69 | 0.85  | 0.55 | V | a |
| 7968 | 3.33  | -0.75 | 0.16 | R | a |
| 7968 | 3.34  | -1.27 | 0.15 | V | a |
| 7968 | 1.65  | -0.53 | 0.16 | R | a |
| 7968 | 1.65  | -0.53 | 0.15 | V | a |

```

7968  4.97 -1.17 0.31 R a
7968  4.96 -0.50 0.39 V a
7968  6.67 -1.28 0.14 R a
7968  6.66 -1.48 0.15 V a
7968  8.22 -1.22 0.17 R a
7968  8.21 -1.53 0.18 V a
7968 15.33 -0.28 0.46 R a
7968 15.32 -0.51 0.29 V a
7968 19.61  0.33 0.37 R a
7968 19.61  0.99 0.39 V a
7968 20.29  1.63 1.13 R a
7968 20.28  1.94 0.90 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
# 18.5098  0.8128  17.4756  0.7153  0.6773  0.0271
#
#      Phmin     err      Pmin     err    Ph0      err      k      err
#      7.81   1.11 -1.381  0.422 16.99  0.14 0.2766 0.0323

```