

1 Exercise 3

A `LossFunction` reduces the influence of residual blocks with too large residuals (usually corresponding to outliers), and thus contributes to a more robust Model. E.g. Huber loss:

$$\rho(s) = \begin{cases} s & s \leq 1 \\ 2\sqrt{s} - 1 & s > 1 \end{cases}$$

In calibration, all points are guaranteed to be inliers (from `aprilgrid`), so it is sufficient to only use a `CostFunction` without filtering the outliers.

2 Exercise 4

- Much too large reprojection error: Wrong matches.
- Too large reprojection error: Wrong matches.
- Too small distance to camera: Wrong matches or wrongly triangulated landmarks stuck in local minima.
- Too small z coordinate: Wrong matches or wrongly triangulated landmarks stuck in local minima.

3 Exercise 5

