Supplementary Material
Modeling dynamic target deformation in camera calibration

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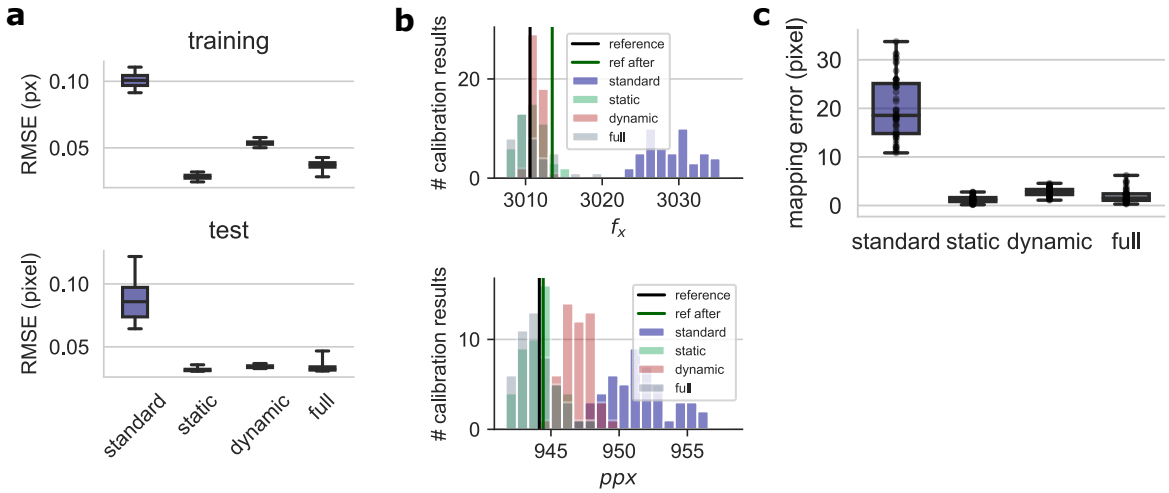

Figure 1. Calibration results on the reference dataset, where the target is lying statically on the ground while the camera is being moved. **a** RMSE on the calibration dataset (training) and the test dataset (test). **b** Distribution of the estimates of two exemplary parameters (focal length f_x and principal point ppx). **c** Mapping error of calibration results w.r.t. reference calibration.

target	calibration method	loop closure RMSE (px)
reference	standard	12.4 ± 2.5
reference	static	1.7 ± 0.6
reference	dynamic (ours)	1.0 ± 0.4
reference	full (ours)	2.5 ± 1.3

Table 1. Reprojection error (root mean squared error, RMSE) in the Structure-from-Motion experiment. The table corresponds to table 1 in the main paper, and shows the corresponding results on the reference dataset where the target is lying statically on the ground. The error reflects the loop closure error of the trajectory in image space. The values are mean and standard deviation across 50 calibrations.

target	maximum out-of-plane deformation (m)
T1	0.0026 ± 0.0012
T2	0.0017 ± 0.0024
T3	0.0030 ± 0.0021
T4	0.00019 ± 0.00057

Table 2. Maximum estimated out-of-plane deformation for the different targets, using the *dynamic* method. The values are mean and standard deviation of the maximum deformation Δz in each image, across all 50 subsets for each target. The small, light target T4 showed the smallest deformations, while the larger targets (T1 and T2), as well as the self-made target T3 showed larger deviations.

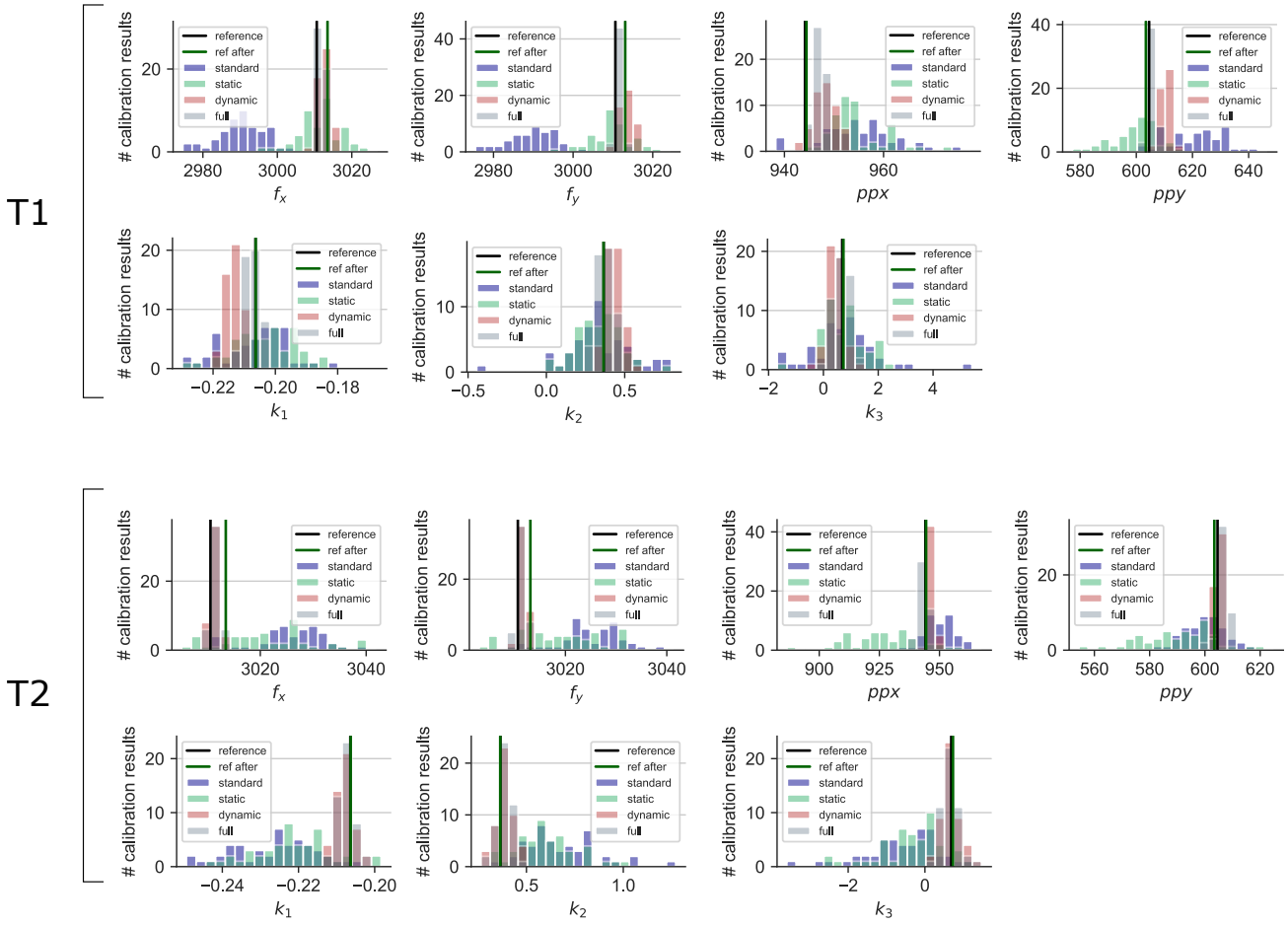

Figure 2. Distribution of estimated intrinsic parameters for targets T1 and T2, using the four different methods *standard*, *static*, *dynamic* and *full*.

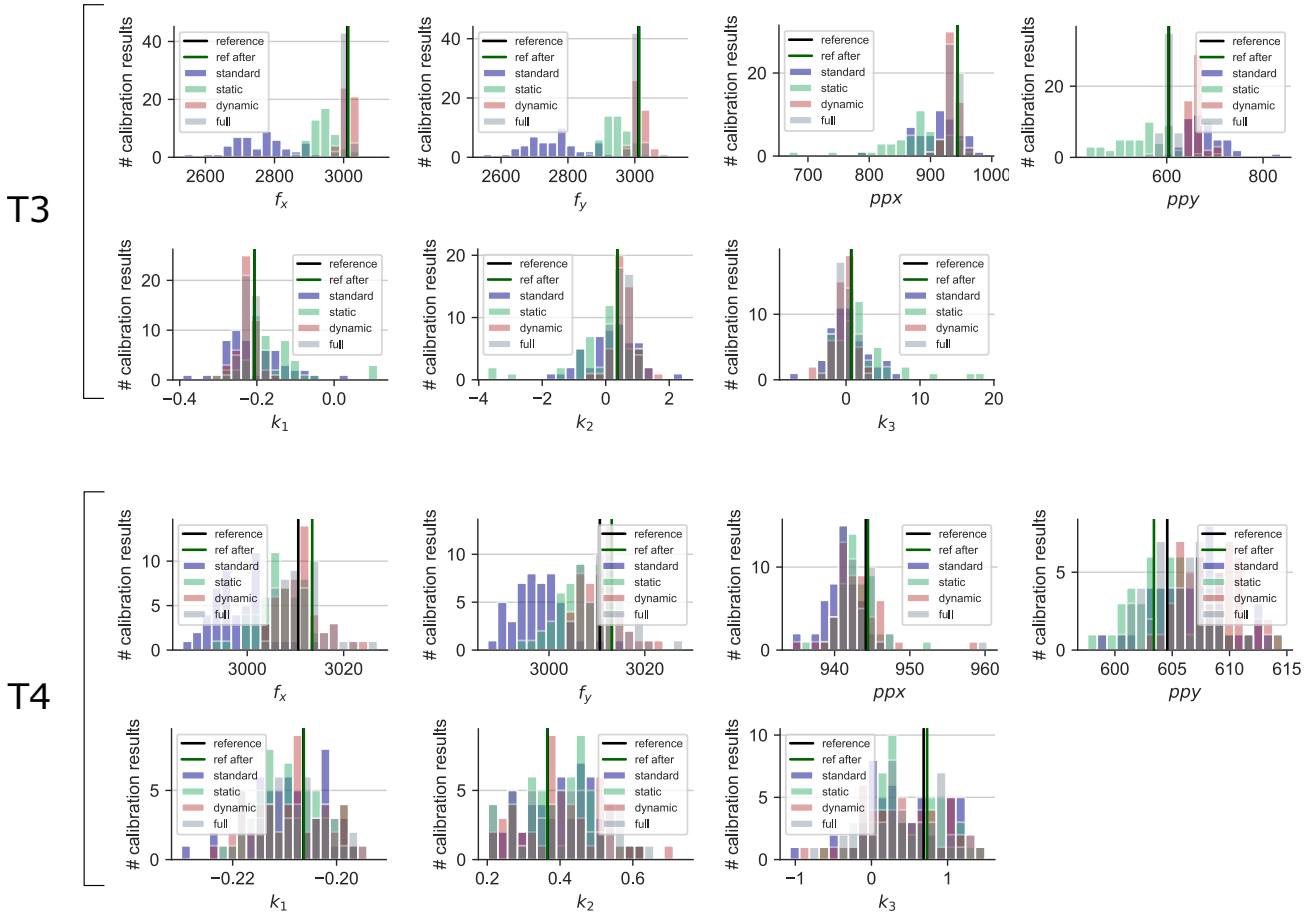

Figure 3. Distribution of estimated intrinsic parameters for targets T3 and T4, using the four different methods *standard*, *static*, *dynamic* and *full*.