

Robust Bundle Adjustment Revisited: Supplementary Material

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This supplementary material depicts additional numerical results for the same datasets, but using different inlier radius τ and robust kernel, respectively. In general, these results are consistent with the ones in the main text.

Figs 1 and 2 contain similar graphs as Figs. 3 and 4 in the main text, but with the inlier threshold τ set to 0.5 pixels.

Figs 3 and 4 are analogous to Figs. 3 and 4 in the main text, but use Tukey's biweight function as robust kernel (with parameter $\tau = 1$).

Figure 5 illustrates the time needed per iteration in the LM solver for the different methods (using metric bundle adjustment and the smooth truncated quadratic kernel with $\tau = 1$).

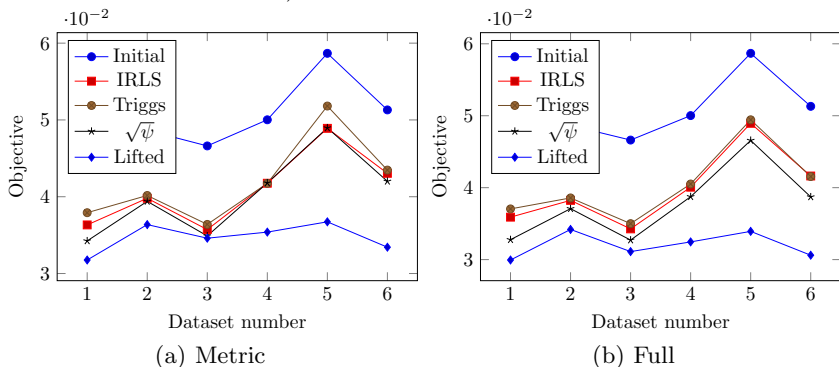


Fig. 1. Initial and final objectives (normalized with the observation count) reached by the different methods.

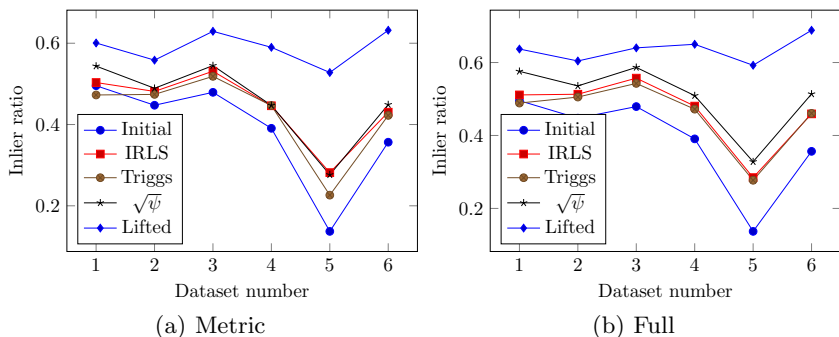


Fig. 2. Initial and reached final ratios obtained by the different methods. The inlier ratio is an indicator of how many terms in the objective are in the flat outlier region.

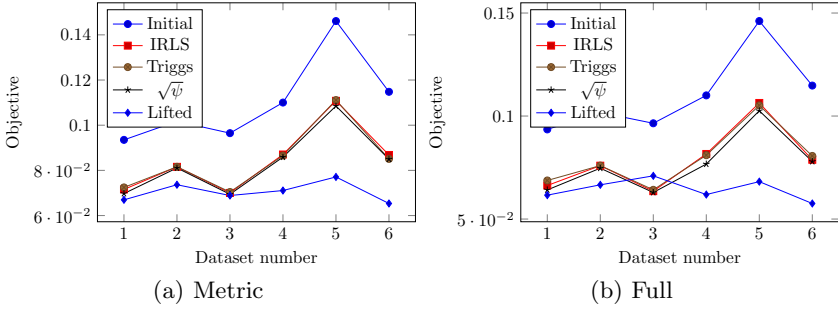


Fig. 3. Initial and final objectives for Tukey's biweight function (normalized with the observation count) reached by the different methods.

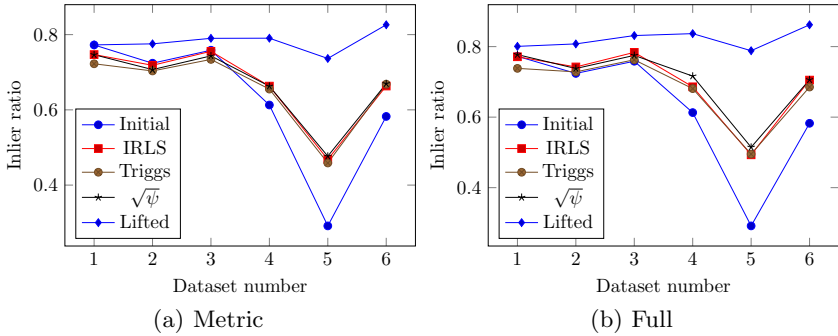


Fig. 4. Initial and reached final ratios obtained by the different methods using Tukey's biweight function.

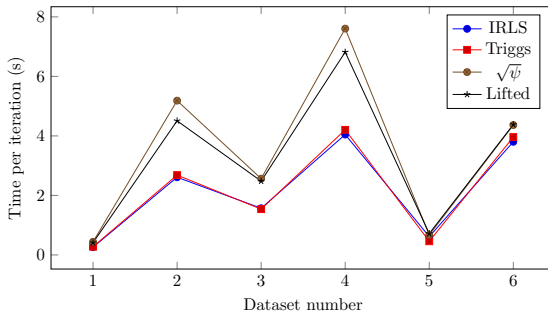


Fig. 5. Time needed per iteration (in seconds) for the different methods.