

Measurement-based Editing of Diffuse Albedo with Consistent Interreflections

Supplemental Material

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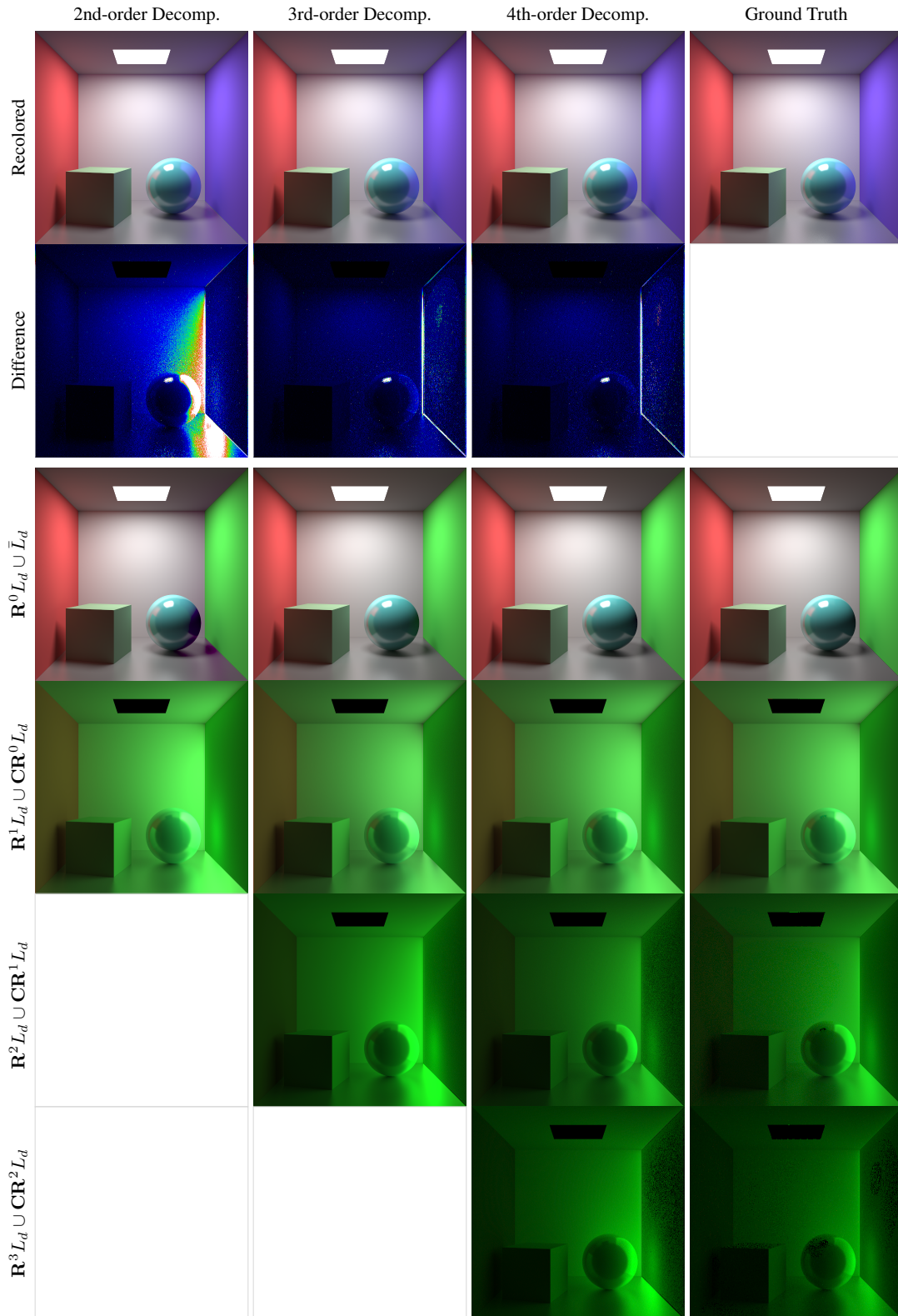


Figure 1: Comparison of the recoloring of the left green wall in a Cornell Box-like scene and the corresponding decompositions for orders 2, 3, and 4.

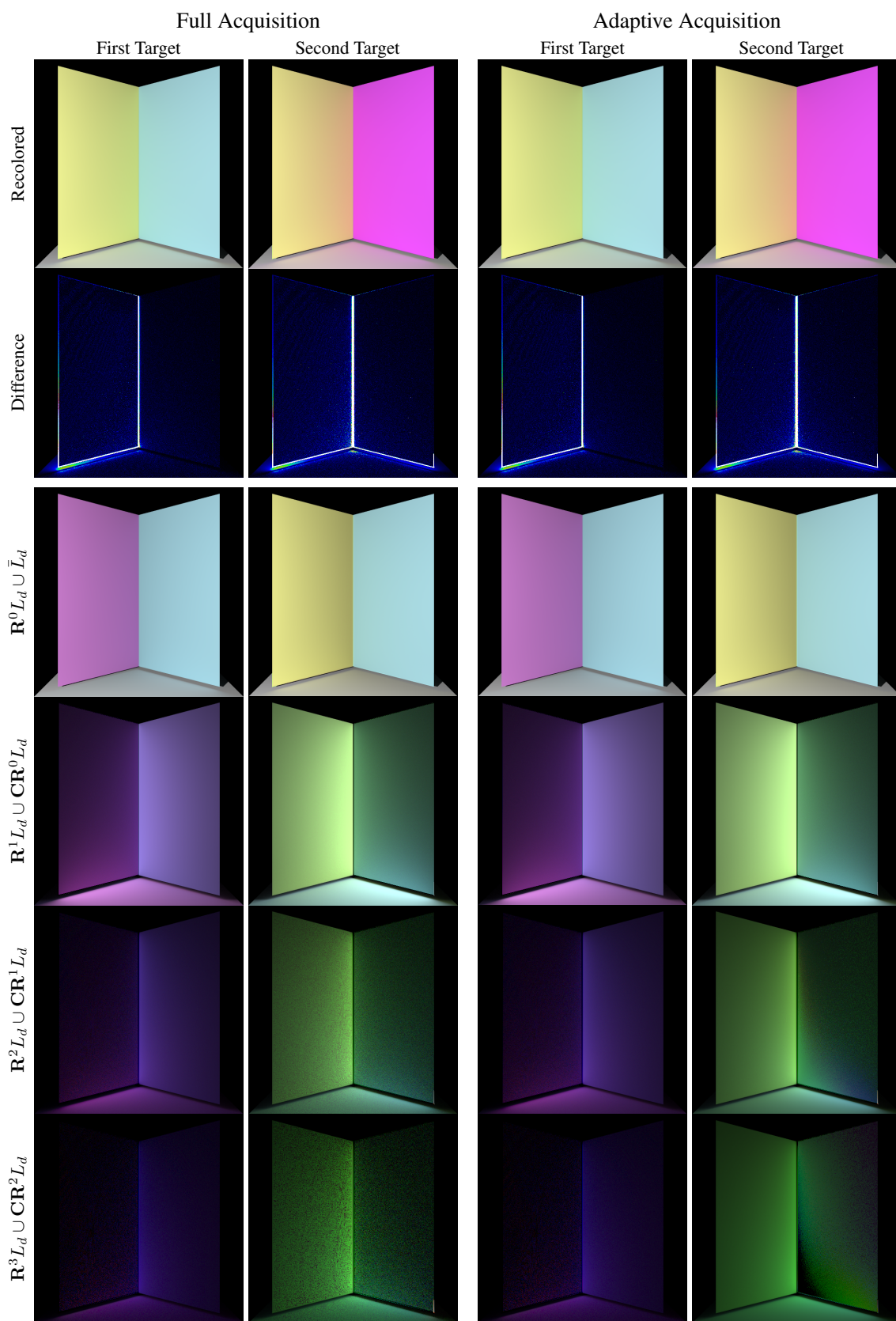


Figure 2: Comparison of the full acquisition decomposition and the adaptive acquisition on a two-target area recoloring. The first and third column show the decomposition after recoloring the first target area. The second and fourth column show the decomposition of the second target area (recolored according to the first target area) – this is the result of the recursive acquisition, i.e., after $O(N^2)$ measurements. Note that there are noticeable differences in the decomposition of the adaptive acquisition, especially on the highest-order interaction component. This is because the decision whether to capture or use the prediction depends on the error on the recolored observations, and not the decomposition. Hence, even though there is a difference in the decomposition, the error on the recolored observations falls below the threshold.

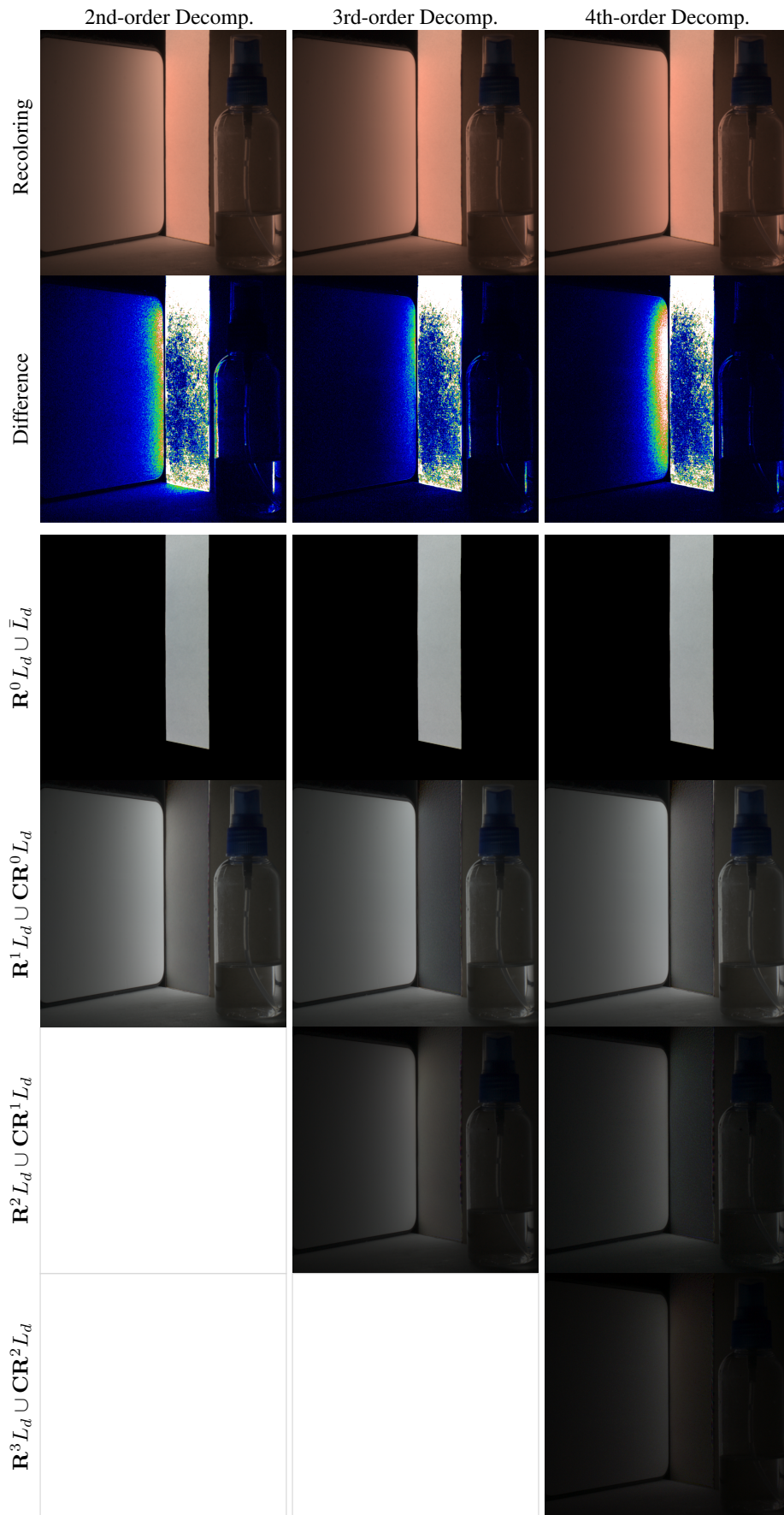


Figure 3: Comparison of the recoloring of the right side and the corresponding decompositions for orders 2, 3, and 4. The higher error on the target area is due to slight differences in geometry of the ground truth scene (i.e., curvature of the pieces of paper). The 3rd-order decomposition and recoloring yields the lowest error for this case.

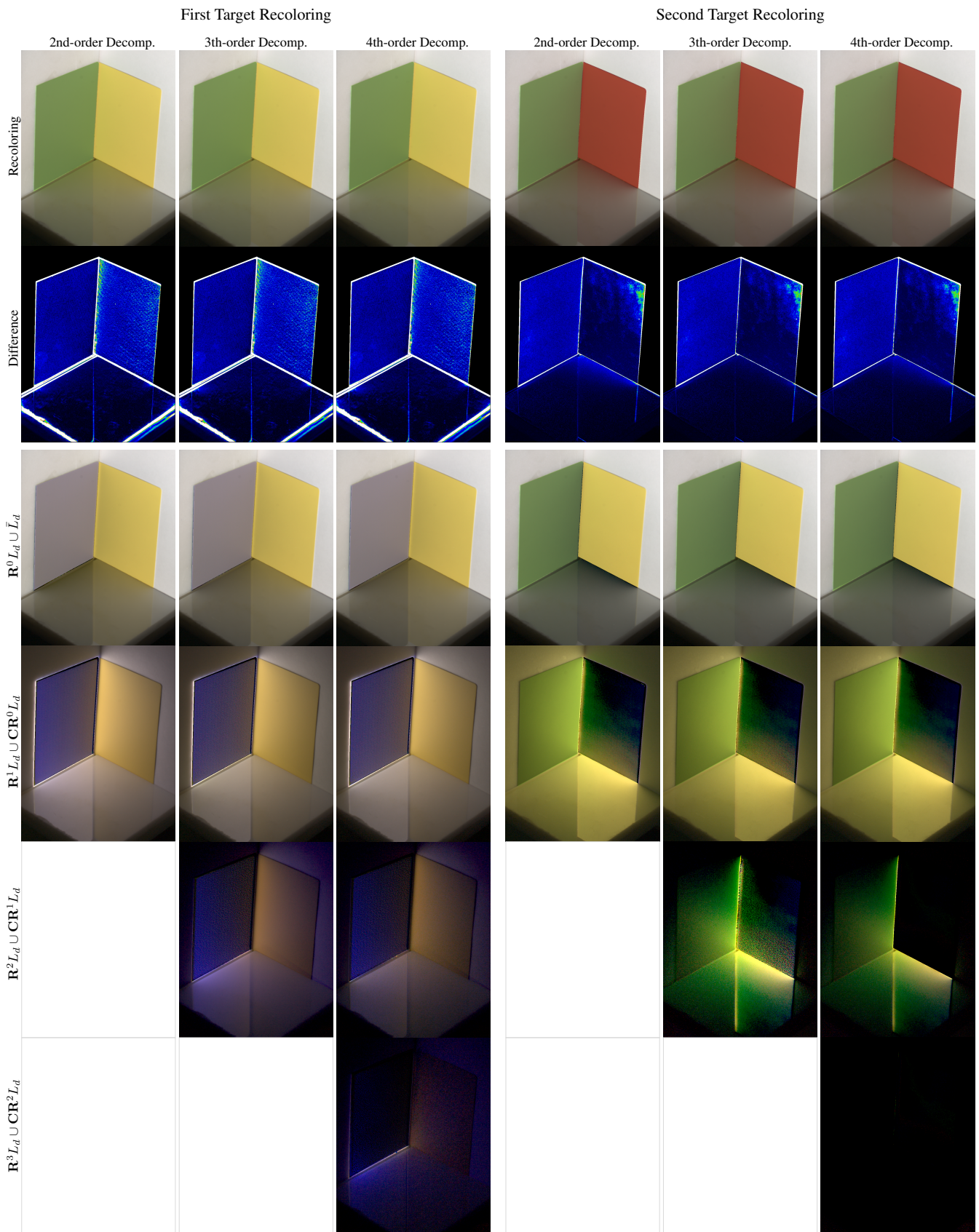


Figure 4: Comparison of a two-target area recoloring, and the corresponding decompositions for orders 2, 3, and 4. All decomposition are close in terms of error, with the 3rd-order decomposition slightly outperforming the others. The accuracy of the 4th-order decomposition is limited by measurement noise.