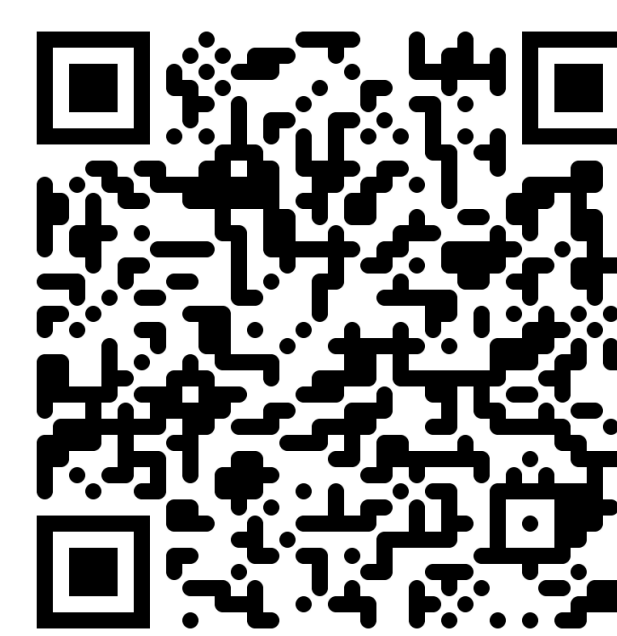


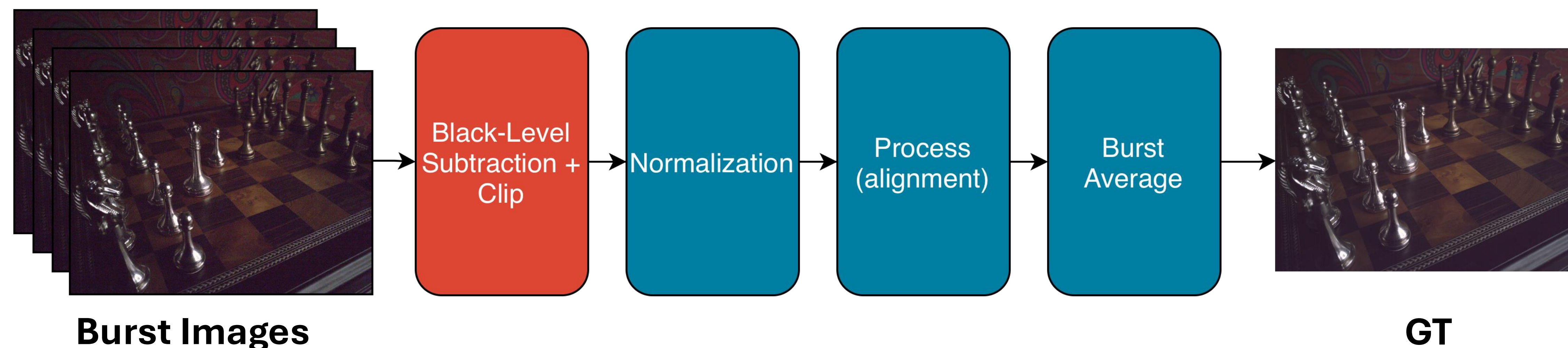
SIDD ground truth suffers from **color bias** due to a wrong order of operations in burst processing.



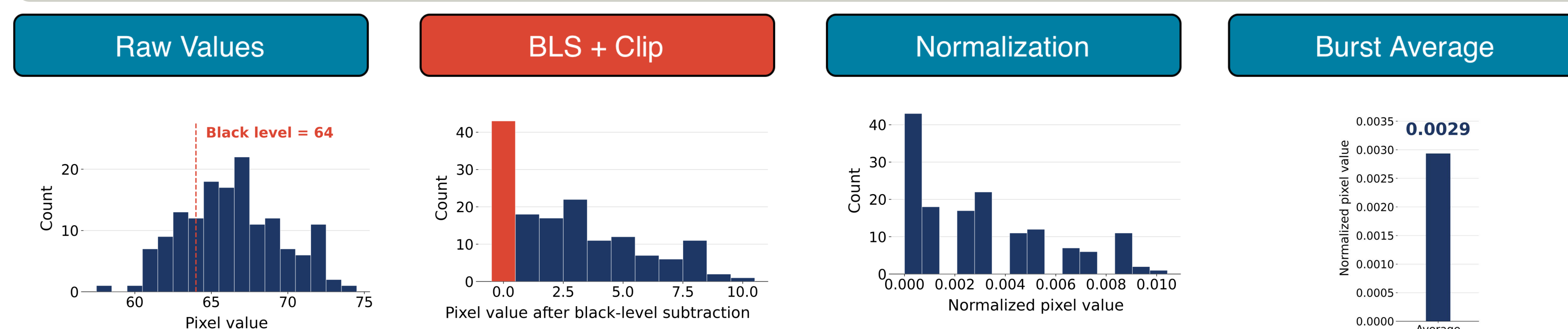
Inaccurate black levels stored in metadata lead to **color bias** after denoising.

SIDD is a standard dataset for smartphone image denoising.

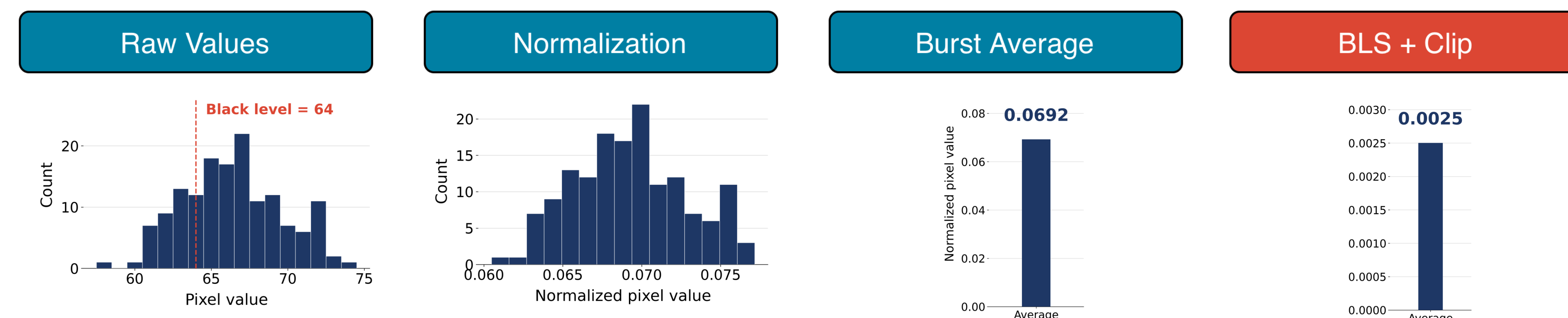
In the original SIDD pipeline, clipping causes a mean shift!



Example: for a dark pixel, many burst values lie **below the black-level**.



Solution: **clipping at the end** prevents any undesired mean shift.

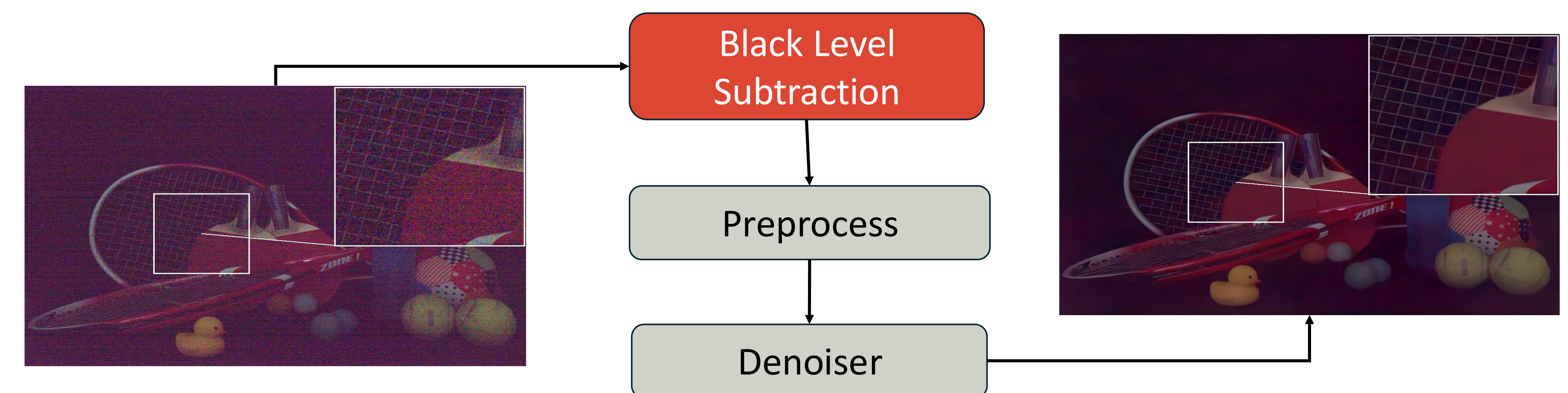


We introduce **SIDD-CC**, with **color-corrected ground-truth** images!



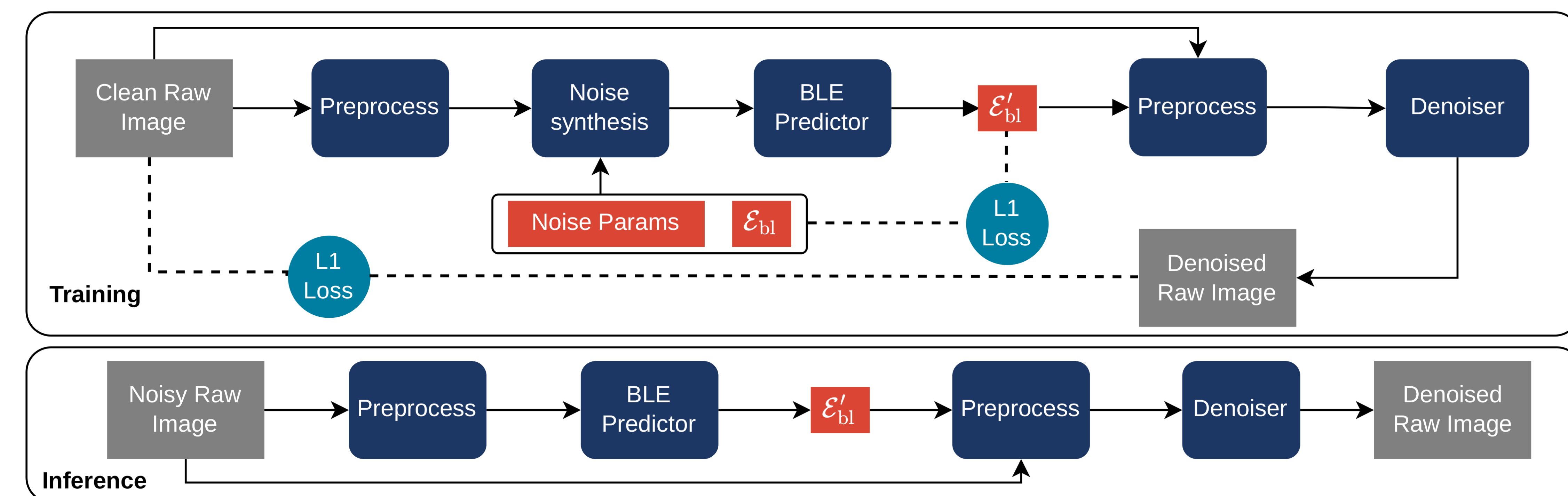
Motivation

Stored metadata may be inaccurate for low-light denoising.



The Idea

Simply introducing **black-level error** into the noise model is not **enough**! We introduce a black-level estimator that processes the whole image and estimates the black-level error as a global distortion.

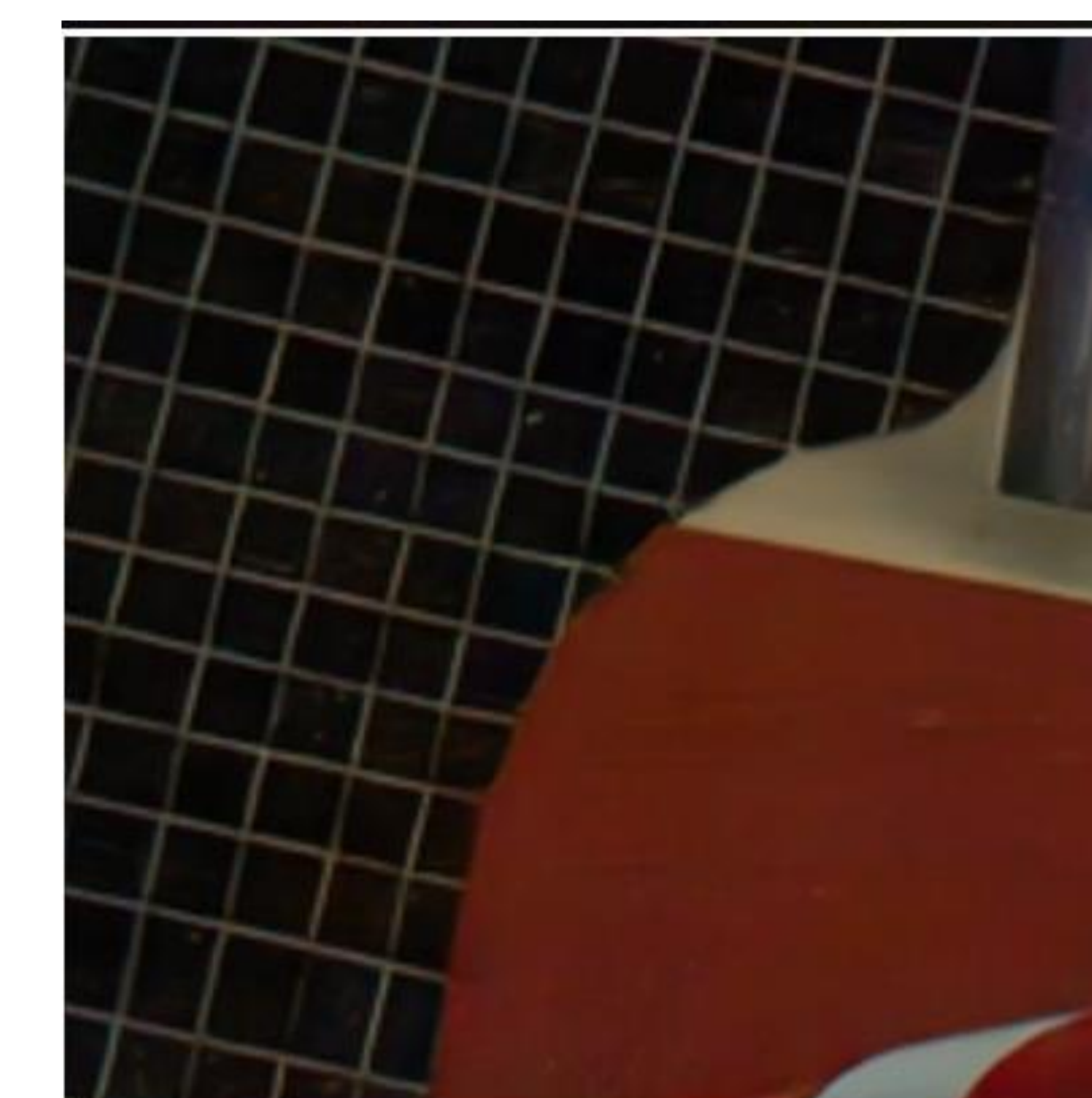
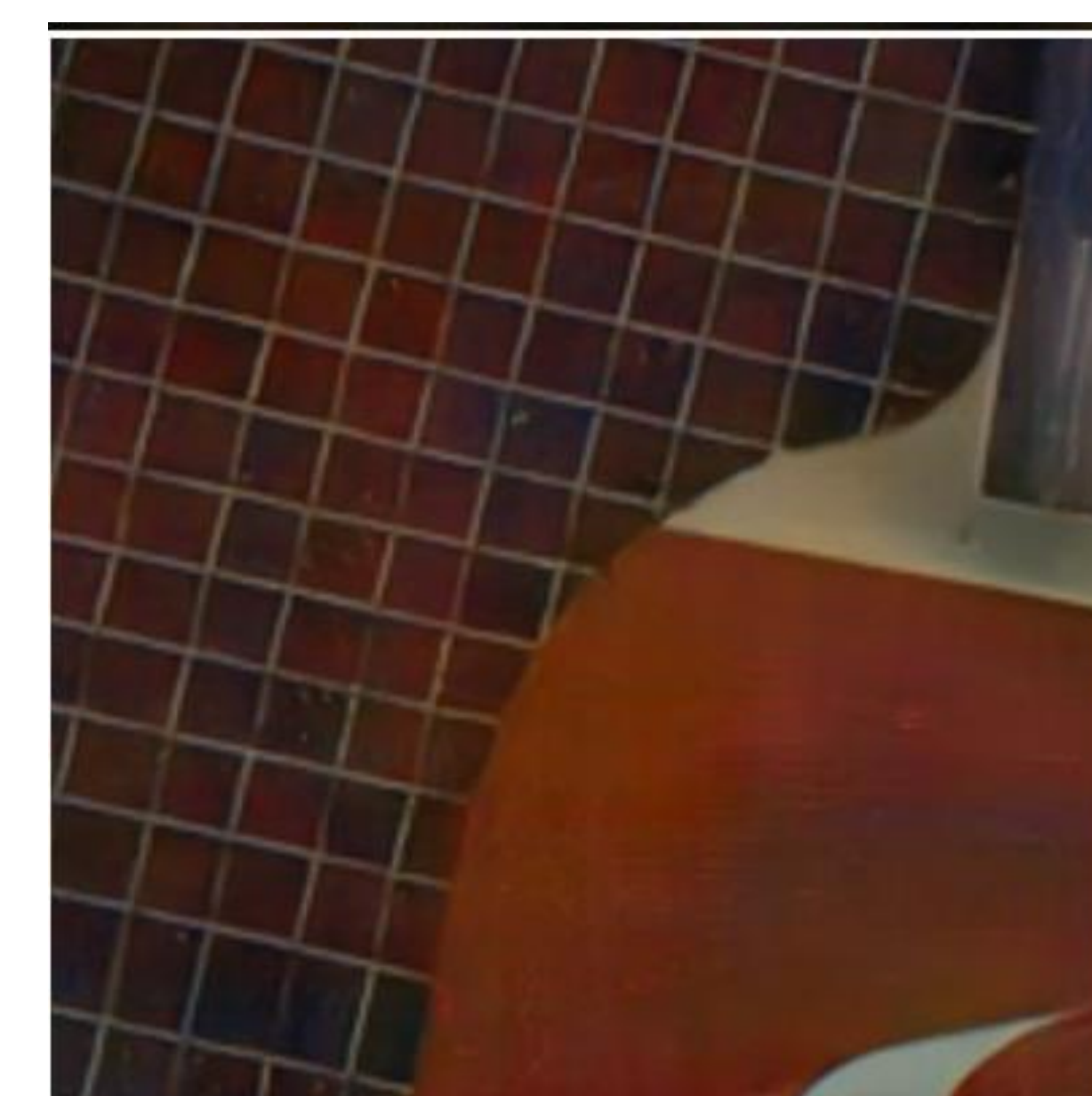


Results (full quantitative/qualitative results in the paper)

Baseline (41.1 dB)

Ours (44.2 dB)

GT



Why Low-Light Cameras Go Color Blind: Removing Color Bias in Raw Denoising

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