

## **Key Contributions:**

- Efficient pipeline for RAW bursts processing. Pyramid flow-guided deformable convolution module for image alignment.
- Transformer-based burst feature extraction and reconstruction.



a) Visual comparison on BurstSR dataset.

**RAW Bursts Processing Pipeline** Restore → RGB Image Align Extract B, N, 4, H, WB, C, 2H, 2WB, N, 1, 2H, 2W *B*, 3, 2*H*s, 2*W*s B, N, C, 2H, 2W b) RAW processing pipeline of EBSR. PixelShuffle x2 Restore → RGB Image Align *В*, *N*, 4, *H*, *W* B,C,2H,2W B, N, C, H, WB, 3, 2Hs, 2Ws *B*, *N*, *C*, 2*H*, 2*W* c) New processing pipeline of our approach.

In our approach, all features are extracted from the low-resolution space, and upscaled before alignment, which is effective and computationally efficient.

# BSRT: Improving Burst Super-Resolution with Swin Transformer and Flow-Guided Deformable Alignment

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Code: https://github.com/Algolzw/BSRT





