

Peer Review

Review of: "Adaptive Iterative Compression for High-Resolution Files: An Approach Focused on Preserving Visual Quality in Cinematic Workflows"

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The authors presented an iterative adaptive compression approach for high-resolution DPX and TIFF image compression for semantic preservation purposes. The method aims to preserve the visual quality of the compressed files by dynamically adjusting the compression parameters depending on the visual quality metrics SSIM and PSNR. Three configurations are introduced, namely C0, C1, and C2, to achieve different compression options according to the desired quality and file size. However, several aspects of the article need to be addressed:

1. The proposed iterative approach is not sufficiently explained. The authors should provide more technical details about the core compression algorithm.
2. The study employed quantitative comparison with additional state-of-the-art approaches. The subjective evaluation with professional reviewers needs a more rigorous explanation of the methodology (number of reviewers, evaluation protocol, statistical analysis, field (e.g., colorists, VFX artists, archivists)).
3. The computational complexity of the proposed method and the competitors' state-of-the-art methods are acknowledged but not quantified. The authors should provide benchmark data on execution time and computational overhead.
4. The article claimed better performance than JPEG 2000 and H.265, but no comparisons are made with these state-of-the-art methods mentioned.
5. The authors did not mention the VMAF metric (commonly used in video compression research). Would this metric align with human perception better than SSIM and PSNR?

6. Figure 1 is of poor resolution and difficult to read. The article lacks illustrative figures, especially in the results section; some visual comparisons are essential and would strengthen the work.

7. Some typos and phrasing errors should be revised (e.g., Section 3.2.3 duplicates "Base Configuration Selection"). Abbreviations should be declared once and at the first time they are mentioned.

Declarations

Potential competing interests: No potential competing interests to declare.