

# Supplementary Material

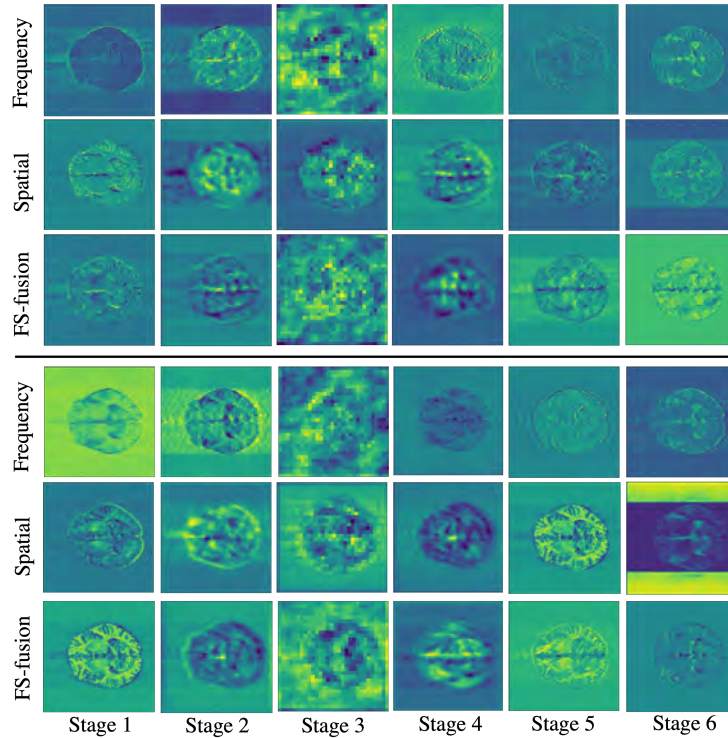
## Accelerated Multi-Contrast MRI Reconstruction via Frequency and Spatial Mutual Learning

Qi Chen<sup>1</sup>, Xiaohan Xing<sup>2,\*</sup>, Zhen Chen<sup>3</sup>, and Zhiwei Xiong<sup>1</sup>

<sup>1</sup> University of Science and Technology of China

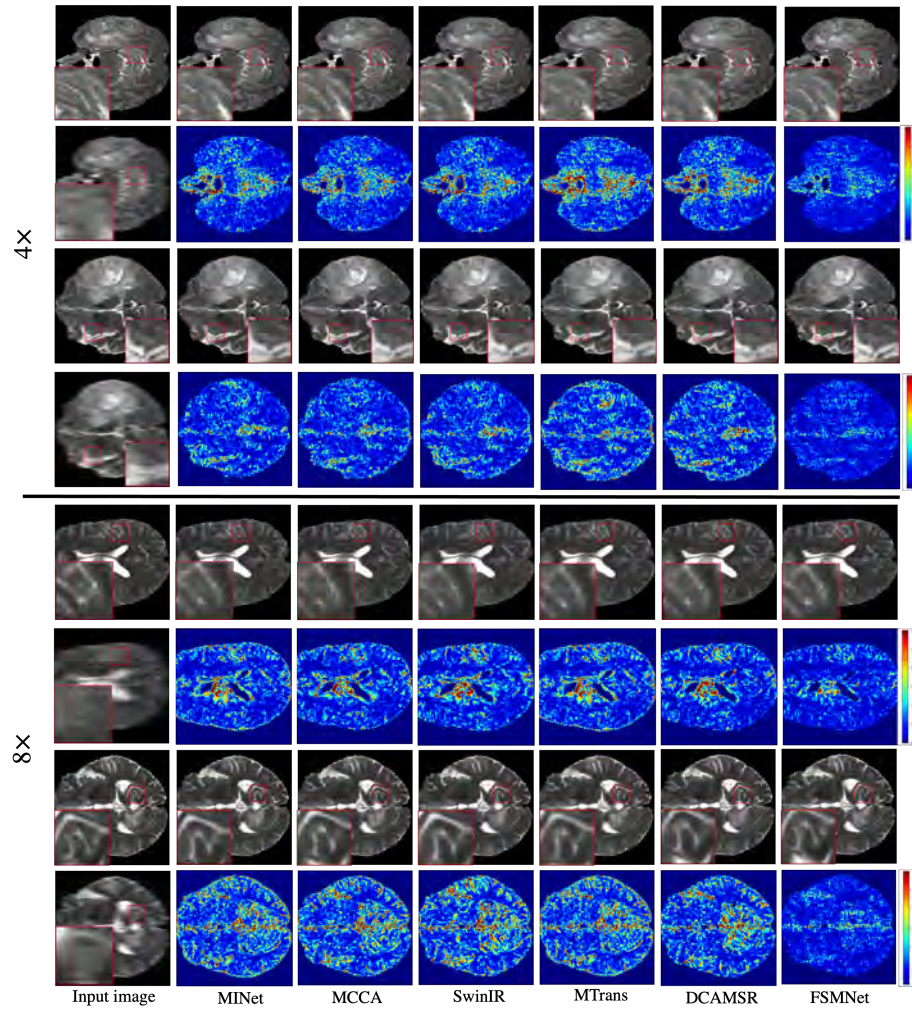
<sup>2</sup> Stanford University

<sup>3</sup> Centre for Artificial Intelligence and Robotics (CAIR), HKISI-CAS



**Fig. 1.** Feature visualization. A feature analysis was conducted for the frequency and spatial features based on the FS-fusion module, which includes  $\hat{\mathbf{F}}_{tf}^i$ ,  $\hat{\mathbf{F}}_{ts}^i$ ,  $\mathbf{F}_{ts}^i$ . Two channels of these features were randomly selected from Stage1-6 for visualization. The results align with our motivation, whereby the frequency feature contains more global information, the spatial feature encompasses rich local features, and the final feature constitutes a comprehensive feature that is enhanced by both the frequency and spatial features.

\* Corresponding author: Xiaohan Xing ([xhxing@stanford.edu](mailto:xhxing@stanford.edu))



**Fig. 2.** More qualitative visualizations compared to different MCMR methods with 4x and 8x AF on the BraTS dataset.