

"Hyperspectral Ground-Based Optical Imaging at the Diffraction Limit". This is a novel approach using stabilized-speckle imaging in combination with our image-slicing integral field spectrograph technology to achieve diffraction-limited performance for space imaging systems in the optical, from the ground, and without adaptive optics correction. This approach, while not without its restrictions, would open up an entire new window for astrophysics and satellite imaging from the ground, pushing diffraction-limited imaging to wavebands impossible to reach with conventional adaptive optics, and at a fraction of the >\$10M cost of those systems. Our proposed efforts here would be to use FSGC funds to "seed" the proof-of-concept for this approach, leading to a full proposal for external funding at the level of approximately \$1M.

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