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### Publications

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#### PUBLICATIONS

- **"Weather" in the LSST camera: investigating patterns in differenced flat images** *JOURNAL OF ASTRONOMICAL TELESCOPES INSTRUMENTS AND SYSTEMS*  
Banovetz, J., Utsumi, Y., Meyers, J., Beleznyay, M., Rasmussen, A., Roodman, A.  
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- **The Active Optics System on the Vera C. Rubin Observatory: Optimal Control of Degeneracy among the Large Number of Degrees of Freedom** *ASTROPHYSICAL JOURNAL*  
Homar, G., Kahn, S. M., Meyers, J. M., Crenshaw, J., Thomas, S. J.  
2024; 974 (1)
- **Using AI for Wave-front Estimation with the Rubin Observatory Active Optics System** *ASTRONOMICAL JOURNAL*  
Crenshaw, J., Connolly, A. J., Meyers, J. E., Kalmbach, J., Homar, G., Ribeiro, T., Suberlak, K., Thomas, S., Tsai, T.  
2024; 167 (2)
- **Advancing the Vera C. Rubin Observatory Active Optics Control System**  
Homar, G., Meyers, J. M., Thomas, S. J., Kahn, S. M., Connolly, A. J., Crenshaw, J., Kalmbach, J., Suberlak, K., Polen, R., Tsai, T., Ribeiro, T., Tighe, R., Rodeghiero, et al  
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- **Analysis of the PSF moments of the Simonyi Survey Telescope**  
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- **Integration and Optical Alignment of the Rubin Observatory Simonyi Survey telescope with a Laser Tracker**  
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- **Prompt Detection of Fast Optical Bursts with the Vera C. Rubin Observatory** *ASTROPHYSICAL JOURNAL*  
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- **The HST See Change Program. I. Survey Design, Pipeline, and Supernova Discoveries\*** *ASTROPHYSICAL JOURNAL*  
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2021; 912 (2)
- **The LSST DESC DC2 Simulated Sky Survey** *ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES*  
Abolfathi, B., Alonso, D., Armstrong, R., Aubourg, E., Awan, H., Babuji, Y. N., Bauer, F., Bean, R., Beckett, G., Biswas, R., Bogart, J. R., Boutigny, D., Chard, et al  
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- **Improving Astronomy Image Quality Through Real-time Wavefront Estimation**

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- Thomas, D., Meyers, J., Kahn, S. M., IEEE Comp Soc  
IEEE COMPUTER SOC.2021: 2076-2085
- **Shear Measurement Bias Due to Spatially Varying Spectral Energy Distributions in Galaxies** *ASTROPHYSICAL JOURNAL*  
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  - **Wide-field wavefront sensing with convolutional neural networks and ordinary least squares**  
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  - **LSST: From Science Drivers to Reference Design and Anticipated Data Products** *ASTROPHYSICAL JOURNAL*  
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2018; 481 (3): 3170–95
  - **Wavelength-dependent PSFs and their impact on weak lensing measurements** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*  
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