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Bio

ACADEMIC APPOINTMENTS

- Engr Res Assoc, Kavli Institute for Particle Astrophysics and Cosmology

Publications

PUBLICATIONS

- **Demonstrating repetitive non-destructive readout with SiSeRO devices** *JOURNAL OF ASTRONOMICAL TELESCOPES INSTRUMENTS AND SYSTEMS*
Chattopadhyay, T., Herrmann, S., Orel, P., Donlon, K., Prigozhin, G., Morris, G., Cooper, M., LaMarr, B., Malonis, A., Allen, S. W., Bautz, M. W., Leitz, C.
2024; 10 (1)
- **X-ray speed reading with the MCRC: prototype success and next generation upgrades**
Orel, P., Pan, A. Y., Herrmann, S. C., Chattopadhyay, T., Morris, G. R., Stueber, H., Allen, S. W., Wilkins, D. R., Prigozhin, G. Y., LaMarr, B. J., Foster, R. F., Malonis, A. C., Bautz, et al
edited by Holland, A. D., Minoglou, K.
SPIE-INT SOC OPTICAL ENGINEERING.2024
- **Continued developments in X-ray speed reading: fast, low noise readout for next-generation wide-field imagers**
Herrmann, S. C., Orel, P., Chattopadhyay, T., Morris, G. R., Prigozhin, G. Y., Stueber, H. R., Allen, S. W., Bautz, M. W., Donlon, K., LaMarr, B. J., Leitz, C. W., Miller, E. D., Pan, et al
edited by Holland, A. D., Minoglou, K.
SPIE-INT SOC OPTICAL ENGINEERING.2024
- **Demonstrating sub-electron noise performance in Single electron Sensitive Readout (SiSeRO) devices**
Chattopadhyay, T., Herrmann, S., Orel, P., Donlon, K., Allen, S. W., Bautz, M. W., Cantrall, B., Cooper, M., LaMarr, B., Leitz, C., Miller, E., Morris, R., Pan, et al
edited by Holland, A. D., Minoglou, K.
SPIE-INT SOC OPTICAL ENGINEERING.2024
- **The XOC X-ray Beamline: Probing Colder, Quieter, and Softer**
Stueber, H. R., Chattopadhyay, T., Herrmann, S. C., Orel, P., Gebre, T., Joshi, A., Allen, S. W., Morris, G. R., Poliszczuk, A.
edited by Holland, A. D., Minoglou, K.
SPIE-INT SOC OPTICAL ENGINEERING.2024
- **Towards efficient machine-learning-based reduction of the cosmic-ray induced background in X-ray imaging detectors: increasing context awareness**
Poliszczuk, A., Wilkins, D., Allen, S. W., Miller, E. D., Chattopadhyay, T., Schneider, B., Darve, J., Bautz, M., Falcone, A., Foster, R., Grant, C. E., Herrmann, S., Kraft, et al
edited by DenHerder, J. W., Nikzad, S., Nakazawa, K.
SPIE-INT SOC OPTICAL ENGINEERING.2024

- **Fast, low-noise image sensor technology for strategic X-ray astrophysics missions**
Bautz, M. W., Miller, E. D., Prigozhin, G. Y., LaMarr, B. J., Malonis, A., Foster, R., Grant, C. E., Schneider, B., Leitz, C., Donlon, K., Prigozhin, I., Lambert, R., Cooper, et al
edited by DenHerder, J. W., Nikzad, S., Nakazawa, K.
SPIE-INT SOC OPTICAL ENGINEERING.2024
- **Improved noise performance from the next-generation buried-channel p-MOSFET SiSeROs** *JOURNAL OF ASTRONOMICAL TELESCOPES INSTRUMENTS AND SYSTEMS*
Chattopadhyay, T., Herrmann, S., Kaplan, M., Orel, P., Donlon, K., Prigozhin, G., Morris, G., Cooper, M., Malonis, A., Allen, S. W., Bautz, M. W., Leitz, C.
2023; 9 (2)
- **Reduction of cosmic-ray induced background in astronomical X-ray imaging detectors via image segmentation methods**
Poliszczuk, A., Wilkins, D., Allen, S. W., Miller, E., Chattopadhyay, T., Bautz, M., Darve, J., Foster, R., Grant, C. E., Herrmann, S., Kraft, R., Morris, R., Orel, et al
edited by Zelinski, M. E., Taha, T. M., Narayanan, B. N.
SPIE-INT SOC OPTICAL ENGINEERING.2023
- **X-ray speed reading with the MCRC: a low noise CCD readout ASIC enabling readout speeds of 5 Mpixel/s/channel**
Orel, P., Herrmann, S., Chattopadhyay, T., Morris, G., Allen, S. W., Prigozhin, G. Y., Foster, R., Malonis, A., Bautz, M. W., Cooper, M. J., Donlon, K.
edited by Holland, A. D., Beletic, J.
SPIE-INT SOC OPTICAL ENGINEERING.2022
- **Single electron Sensitive Readout (SiSeRO) X-ray detectors: Technological progress and characterization**
Chattopadhyay, T., Herrmann, S., Orel, P., Morris, R. G., Wilkins, D. R., Allen, S. W., Prigozhin, G., LaMarr, B., Malonis, A., Foster, R., Bautz, M. W., Donlon, K., Cooper, et al
edited by Holland, A. D., Beletic, J.
SPIE-INT SOC OPTICAL ENGINEERING.2022
- **First results on SiSeRO devices: a new x-ray detector for scientific instrumentation** *Journal of Astronomical Telescopes, Instruments, and Systems*
Chattopadhyay, T., et al
2022; 8 (2): 12
- **Development and characterization of a fast and low noise readout for the next generation x-ray charge-coupled devices** *Journal of Astronomical Telescopes, Instruments, and Systems*
Chattopadhyay, T., et al
2022; 8 (2): 12