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Bio

ACADEMIC APPOINTMENTS

- Physical Science Research Scientist, KIPAC

Publications

PUBLICATIONS

- **Neutral Gas Phase Distribution from H <sc>I</sc> Morphology: Phase Separation with Scattering Spectra and Variational Autoencoders** *ASTROPHYSICAL JOURNAL*
  Lei, M., Clark, S. E., Morel, R., Allys, E., Butsky, I. S., Redshaw, C., Fielding, D. B.
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- **Hooks, Lines, and Sinkers: How Active Galactic Nucleus Feedback and Cosmic-Ray Transport Shape the Far-infrared-Radio Correlation of Galaxies** *ASTROPHYSICAL JOURNAL*
  Ponnada, S. B., Cochrane, R. K., Hopkins, P. F., Butsky, I. S., Wellons, S., Sanchez, N., Hummels, C., Lu, Y., Keres, D., Hayward, C. C.
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- **Cold Gas Subgrid Model (CGSM): a two-fluid framework for modelling unresolved cold gas in galaxy simulations** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
  Butsky, I. S., Hummels, C. B., Hopkins, P. F., Quinn, T. R., Werk, J. K.
  2024; 535 (2): 1672-1683

- **Galactic cosmic-ray scattering due to intermittent structures** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
  Butsky, I. S., Hopkins, P. F., Kempski, P., Ponnada, S. B., Quataert, E., Squire, J.
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- **Synchrotron emission on FIRE: equipartition estimators of magnetic fields in simulated galaxies with spectrally resolved cosmic rays** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
  Ponnada, S. B., Panopoulou, G., Butsky, I. S., Hopkins, P. F., Skalidis, R., Hummels, C., Quataert, E., Keres, D., Faucher-Giguere, C., Su, K.
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- **Ab Initio Simulations of a Supernova-driven Galactic Dynamo in an Isolated Disk Galaxy** *ASTROPHYSICAL JOURNAL*
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  2017; 843 (2)