

## Isaac Kauvar

Postdoctoral Scholar, Education

### Publications

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#### PUBLICATIONS

- **Deep posteromedial cortical rhythm in dissociation.** *Nature*  
Vesuna, S., Kauvar, I. V., Richman, E., Gore, F., Oskotsky, T., Sava-Segal, C., Luo, L., Malenka, R. C., Henderson, J. M., Nuyujukian, P., Parvizi, J., Deisseroth, K.  
2020
- **Optically sensing neural activity without imaging** *NATURE PHOTONICS*  
Wetzstein, G., Kauvar, I.  
2020; 14 (6): 340–41
- **Cortical Observation by Synchronous Multifocal Optical Sampling Reveals Widespread Population Encoding of Actions.** *Neuron*  
Kauvar, I. V., Machado, T. A., Yuen, E. n., Kochalka, J. n., Choi, M. n., Allen, W. E., Wetzstein, G. n., Deisseroth, K. n.  
2020
- **A Light-Field Metasurface for High-Resolution Single-Particle Tracking.** *Nano letters*  
Holsteen, A. L., Lin, D., Kauvar, I., Wetzstein, G., Brongersma, M. L.  
2019
- **Global Representations of Goal-Directed Behavior in Distinct Cell Types of Mouse Neocortex** *NEURON*  
Allen, W. E., Kauvar, I. V., Chen, M. Z., Richman, E. B., Yang, S. J., Chan, K., Gradinaru, V., Deverman, B. E., Luo, L., Deisseroth, K.  
2017; 94 (4): 891-?
- **Ancestral Circuits for the Coordinated Modulation of Brain State.** *Cell*  
Lovett-Barron, M. n., Andalman, A. S., Allen, W. E., Vesuna, S. n., Kauvar, I. n., Burns, V. M., Deisseroth, K. n.  
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- **Modulation of prefrontal cortex excitation/inhibition balance rescues social behavior in CNTNAP2-deficient mice.** *Science translational medicine*  
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- **Simultaneous fast measurement of circuit dynamics at multiple sites across the mammalian brain.** *Nature methods*  
Kim, C. K., Yang, S. J., Pichamoorthy, N., Young, N. P., Kauvar, I., Jennings, J. H., Lerner, T. N., Berndt, A., Lee, S. Y., Ramakrishnan, C., Davidson, T. J., Inoue, M., Bito, et al  
2016; 13 (4): 325-328
- **SPED Light Sheet Microscopy: Fast Mapping of Biological System Structure and Function** *CELL*  
Tomer, R., Lovett-Barron, M., Kauvar, I., Andalman, A., Burns, V. M., Sankaran, S., Grosenick, L., Broxton, M., Yang, S., Deisseroth, K.  
2015; 163 (7): 1796-1806
- **Extended field-of-view and increased-signal 3D holographic illumination with time-division multiplexing** *OPTICS EXPRESS*  
Yang, S. J., Allen, W. E., Kauvar, I., Andalman, A. S., Young, N. P., Kim, C. K., Marshel, J. H., Wetzstein, G., Deisseroth, K.  
2015; 23 (25): 32573-32581
- **Adaptive Color Display via Perceptually-driven Factored Spectral Projection** *ACM TRANSACTIONS ON GRAPHICS*  
Kauvar, I., Yang, S. J., Shi, L., McDowall, I., Wetzstein, G.

2015; 34 (6)

- **Natural neural projection dynamics underlying social behavior.** *Cell*  
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- **The Role of Electron Affinity in Determining Whether Fullerenes Catalyze or Inhibit Photooxidation of Polymers for Solar Cells** *ADVANCED ENERGY MATERIALS*  
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- **Influence of the hole-transport layer on the initial behavior and lifetime of inverted organic photovoltaics** *SOLAR ENERGY MATERIALS AND SOLAR CELLS*  
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- **Unconventional Face-On Texture and Exceptional In-Plane Order of a High Mobility n-Type Polymer** *ADVANCED MATERIALS*  
Rivnay, J., Toney, M. F., Zheng, Y., Kauvar, I. V., Chen, Z., Wagner, V., Facchetti, A., Salbeck, A.  
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