



Dominic Beck

Physical Science Research Scientist

Kavli Institute for Particle Astrophysics and Cosmology

Bio

ACADEMIC APPOINTMENTS

- Physical Science Research Scientist, Kavli Institute for Particle Astrophysics and Cosmology

PROFESSIONAL EDUCATION

- PhD, University of Paris (2019)
- MSc, ETH Zürich & École Polytechnique Paris (2016)
- BSc, TU Berlin (2014)

Publications

PUBLICATIONS

- **CMB-S4: Foreground-cleaning Pipeline Comparison for Measuring Primordial Gravitational Waves** *ASTROPHYSICAL JOURNAL*
Bianchini, F., Beck, D., Wu, W., Ahmed, Z., Belkner, S., Carron, J., Hensley, B. S., Pryke, C. L., Umiltà, C.
2025; 993 (1)
- **Filamentary Dust Polarization and the Morphology of Neutral Hydrogen Structures** *ASTROPHYSICAL JOURNAL*
Halal, G., Clark, S. E., Cukierman, A., Beck, D., Kuo, C.
2024; 961 (1)
- **BICEP/Keck. XVI. Characterizing Dust Polarization through Correlations with Neutral Hydrogen** *ASTROPHYSICAL JOURNAL*
Ade, P. R., Ahmed, Z., Amiri, M., Barkats, D., Thakur, R., Bischoff, C. A., Beck, D., Bock, J. J., Boenish, H., Bullock, E., Buza, V., Cheshire, J. R., Clark, et al
2023; 945 (1)
- **Bias on tensor-to-scalar ratio inference with estimated covariance matrices** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Beck, D., Cukierman, A., Wu, W.
2022; 515 (1): 229-236
- **LiteBIRD satellite: JAXA's new strategic L-class mission for all-sky surveys of cosmic microwave background polarization**
Hazumi, M., Ade, P. A., Adler, A., Allys, E., Arnold, K., Auguste, D., Aumont, J., Aurlien, R., Austermann, J., Baccigalupi, C., Banday, A. J., Banjeri, R., Barreiro, et al
edited by Lystrup, M., Perrin, M. D., Batalha, N., Siegler, N., Tong, E. C.
SPIE-INT SOC OPTICAL ENGINEERING.2021
- **Impact of polarized galactic foreground emission on CMB lensing reconstruction and delensing of B-modes** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*
Beck, D., Errard, J., Stompor, R.
2020

- **CMB lensing reconstruction biases in cross-correlation with large-scale structure probes** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*
Fabbian, G., Lewis, A., Beck, D.
2019
- **Lensing reconstruction in post-Born cosmic microwave background weak lensing** *PHYSICAL REVIEW D*
Beck, D., Fabbian, G., Errard, J.
2018; 98 (4)