

CONTACT INFORMATION	Department of Physics & Astronomy The Johns Hopkins University 3400 N. Charles Street Baltimore, MD 21218	<i>Email:</i> c.overstreet@jhu.edu
EDUCATION	<p>Stanford University (Stanford, California) 2013 - 2020 Ph.D. in Physics <ul style="list-style-type: none"> • Dissertation: <i>Atom-interferometric test of the equivalence principle and observation of a quantum system in curved spacetime</i> M.S. in Physics</p> <p>Harvard University (Cambridge, Massachusetts) 2009 - 2013 A.B. <i>summa cum laude</i> in Physics and Mathematics</p>	
EMPLOYMENT	<p>Johns Hopkins University (Baltimore, Maryland) July 2023 Assistant professor</p> <p>Stanford University (Stanford, California) 2020 - 2023 Postdoctoral fellow</p>	
HONORS AND AWARDS	<p>Q-FARM Bloch Fellowship in Quantum Science and Engineering 2021 - 2023</p> <p>Paul Ehrenfest Best Paper Award for Quantum Foundations 2020</p> <p>Paul H. Kirkpatrick Award for excellence in the teaching of physics to undergraduates 2017</p> <p>Stanford Graduate Fellowship – Burt and Deedee McMurtry Fellow 2013 - 2016</p> <p>National Science Foundation Graduate Research Fellowship – Honorable Mention 2013</p>	
PUBLICATIONS	<p>C. Overstreet, J. Curti, M. Kim, P. Asenbaum, M. A. Kasevich, and F. Giacomini, “Inference of gravitational field superposition from quantum measurements.” <i>Phys. Rev. D</i> 108, 084038 (2023).</p> <p>C. Overstreet, P. Asenbaum, J. Curti, M. Kim, and M. A. Kasevich, “Observation of a gravitational Aharonov-Bohm effect.” <i>Science</i> 375, 226-229 (2022).</p> <p>C. Overstreet, P. Asenbaum, and M. A. Kasevich, “Physically significant phase shifts in matter-wave interferometry.” <i>Am. J. Phys.</i> 89, 324 (2021). <ul style="list-style-type: none"> • Editor’s Pick </p> <p>M. Kim, R. Notermans, C. Overstreet, J. Curti, P. Asenbaum, and M. A. Kasevich, “40 W, 780 nm laser system with compensated dual beam splitters for atom interferometry.” <i>Opt. Lett.</i> 45, 6555-6558 (2020).</p>	

- P. Asenbaum, **C. Overstreet**, M. Kim, J. Curti, and M. A. Kasevich, “Atom-interferometric test of the equivalence principle at the 10^{-12} level.” *Phys. Rev. Lett.* 125, 191101 (2020).
- C. Overstreet**, P. Asenbaum, and M. A. Kasevich, “Progress and recent results on the gravitational measurements using the 10 m atomic fountain.” In *2019 Gravitation*, ed. Étienne Augé et al. (2019).
- C. Overstreet**, P. Asenbaum, T. Kovachy, R. Notermans, J. M. Hogan, and M. A. Kasevich, “Effective inertial frame in an atom interferometric test of the equivalence principle.” *Phys. Rev. Lett.* 120, 183604 (2018).
- P. Asenbaum, **C. Overstreet**, T. Kovachy, D. D. Brown, J. M. Hogan, and M. A. Kasevich, “Phase shift in an atom interferometer due to spacetime curvature across its wave function.” *Phys. Rev. Lett.* 118, 183602 (2017).
- Editor’s Suggestion
- C. D. Panda, B. R. O’Leary, A. D. West, J. Baron, P. W. Hess, C. Hoffman, E. Kirilov, **C. B. Overstreet**, E. P. West, D. DeMille, J. M. Doyle, and G. Gabrielse, “Stimulated Raman adiabatic passage preparation of a coherent superposition of $\text{ThO } H^3\Delta_1$ states for an improved electron electric-dipole-moment measurement.” *Phys. Rev. A* 93, 052110 (2016).
- T. Kovachy, P. Asenbaum, **C. Overstreet**, C. A. Donnelly, S. M. Dickerson, A. Sugarbaker, J. M. Hogan, and M. A. Kasevich, “Quantum superposition at the half-metre scale.” *Nature* 528, 530-533 (2015).
- T. Kovachy, J. M. Hogan, A. Sugarbaker, S. M. Dickerson, C. A. Donnelly, **C. Overstreet**, and M. A. Kasevich, “Matter wave lensing to picokelvin temperatures.” *Phys. Rev. Lett.* 114, 143004 (2015).

INVITED PRESENTATIONS	“Precision measurement with atom interferometry.” DQ-mat Colloquium, Leibniz Universität Hannover	10/2023
	“Fundamental physics with AMO systems.” Experimental Particle Physics Seminar, Johns Hopkins University	09/2023
	“Precision measurement with atom interferometry.” University of Chicago Seminar	08/2023
	“Precision measurement with atom interferometry.” CFP Colloquium, Northwestern University	08/2023
	“Atom interferometers for quantum sensing of gravity.” GRC Quantum Sensing	07/2023
	“Precision measurement with atom interferometry.” McMaster University Seminar	04/2023
	“Precision measurement with atom interferometry.” Johns Hopkins University Seminar	02/2023

“Precision measurement with atom interferometry.” Harvard University Seminar 01/2023

“Gravitational effects in quantum systems.” MAGIS Group Meeting 12/2022

“Atom-interferometric test of the equivalence principle at the 10^{-12} level.”
Photonics West 02/2021

“Atom-interferometric test of the equivalence principle at the 10^{-12} g level.” OSA
Quantum 2.0 Conference 09/2020

“Atom-interferometric test of the equivalence principle and observation of a
quantum system in curved spacetime.” Brown University CFPU Seminar 05/2020

“Progress and recent results on the gravitational measurements using the 10 m
atomic fountain.” Rencontres de Moriond Gravitation 03/2019

TEACHING

Head Teaching Assistant (Stanford University)
Physics 43/44, Electricity and Magnetism Spring 2018

Teaching Assistant (Stanford University)
Physics 170, Thermodynamics, Kinetic Theory, and Statistical Mechanics I Fall 2017

Physics 121, Intermediate Electricity and Magnetism II Spring 2016

Physics 43, Electricity and Magnetism Spring 2015

Physics 41, Mechanics Winter 2014

SERVICE

Reviewer for *Physical Review A*, *Physica Scripta*, *npj Microgravity*, *Quantum*