

Curriculum Vitae

Andreas J. Albrecht

Center for Quantum Mathematics and Physics (QMAP)
and
Department of Physics and Astronomy, University of California,
One Shields Avenue, Davis CA 95616
530 754 9269
530 752 4717 (Fax)
ajalbrecht@ucdavis.edu
<http://albrecht.ucdavis.edu/>
Updated 12/18/2023

Honors

Professional Societies

Fellow of the American Academy of Arts and Sciences
Fellow of the American Association for the Advancement of Science
Fellow of the American Physical Society
Fellow of the Institute of Physics (UK)

Other honors

Herbert A Young Society Dean's Fellow 2013-16
Cornell University Class of 1979 Distinguished Alum
Musk Lecture, University of Pennsylvania, September 2022

Appointments

1. **UC Davis**, Davis, CA; Distinguished Research Professor 3/24 –
2. **UC Davis**, Davis, CA; Distinguished Professor 7/14 – 2/24
3. **UC Davis**, Davis CA; Inaugural Director of the Center for Quantum Mathematics and Physics (QMAP) 2017- 2023
4. **UC Davis**, Davis, CA; Physics Department Chair 9/11 – 6/16
5. **UC Davis**, Davis, CA; Professor 7/98 – 6/14
6. **Imperial College**, London England; Professor 7/98-12/98, Reader 10/95 - 8/98, Lecturer 8/92 - 9/95.
7. **Fermilab**, Batavia, IL; Associate Scientist 2/87 - 8/92
8. **Los Alamos National Lab**, Los Alamos, NM; Post Doctoral Research Fellow 9/85 - 2/87. (Advisor: Wojciech Zurek)

9. **University of Texas**, Austin, TX; Post Doctoral Research Fellow 9/83 - 9/85 (Advisor: Steve Weinberg)

Higher Education

1. **University of Pennsylvania**, Philadelphia, PA; Ph.D. May 1983 (Thesis title: "A New Inflationary Cosmology". Thesis advisor: Paul Steinhardt)
2. **Cornell University**, Ithaca, NY; BA May 1979 (Cum Laude in Physics, undergraduate research advisor: Bob Richardson)

Selected publications

1. A. Albrecht and P. Steinhardt, *Cosmology for Grand Unified Theories with Radiatively Induced Symmetry Breaking* [Phys. Rev. Lett. 48, 1220 \(1982\)](#).
2. A. Albrecht and N. Turok, *Evolution of Cosmic Strings* [Phys. Rev. Lett. 54, 1868 \(1985\)](#)
3. A. Albrecht, P. Ferreira, M. Joyce, and T. Prokopec, *Inflation and squeezed quantum states* [Phys. Rev. D 50 4807 \(1994\)](#). [[astro-ph/9303001](#)]
4. A. Albrecht, D. Coulson, P. Ferreira, and J. Magueijo, *Causality, randomness, and the microwave background* [Phys. Rev. Lett. 76 1413 \(1996\)](#). [[astro-ph/9505030](#)]
5. A. Albrecht, *Cosmic Inflation and the Arrow of Time*, in "Science and Ultimate Reality: Quantum Theory, Cosmology and Complexity", honoring John Wheeler's 90th birthday. J. D. Barrow, P.C.W. Davies, & C.L. Harper eds. Cambridge University Press (2004) [[astro-ph/0210527](#)]
6. A. Albrecht and L. Sorbo *Can the universe afford inflation?* [[hep-th/0405270](#)]
[Phys. Rev. D70 \(2004\) 063528](#)
7. A. Albrecht *et al.* *Report of the Dark Energy Task Force* [[arXiv:astro-ph/0609591](#)] (2006)
8. A. Albrecht and D. Phillips *Origin of probabilities and their application to the multiverse*. [[arXiv:1212.0953](#)] [Phys.Rev. D90 \(2014\) 12, 123514](#)
9. A. Albrecht, N. Bolis and R. Holman *Cosmological Consequences of Initial State Entanglement* [[arXiv:1408.6859](#)] [JHEP 1411 \(2014\) 093](#)
10. Z. Holmes, A. Arrasmith, B. Yan, P. Coles, A. Albrecht, A. Sornborger *Barren plateaus preclude learning scramblers* [[arXiv \[2009.14808\]](#)] [Phys. Rev. Lett. 126, 190501 \(2021\)](#)
11. A. Albrecht, R. Baunach and A. Arrasmith [[2105.14017](#)] [Einselection, Equilibrium and Cosmology \(arxiv.org\)](#) [Phys. Rev. D 106, 123507 \(2022\)](#)
12. A. Adil, A. Albrecht and L. Knox [[2207.10235](#)] [Quintessential Cosmological Tensions \(arxiv.org\)](#) (Accepted, Phys. Rev. D, 2022)
13. A. Albrecht, R. Baunach and A. Arrasmith [[2105.14017](#)] [Einselection, Equilibrium and Cosmology \(arxiv.org\)](#) [Phys. Rev. D 106, 123507 \(2022\)](#)