Professional Activities of Andreas Albrecht Updated 11/11/2015

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UC Davis Physics Department Chair Fall 2011 to present

Highlights

- 1) Moving the department forward with an ambitious vision to grow from 41 faculty to 55 faculty in several years. This expansion will include a number of brand new initiatives.
- 2) AY 14-15: Launched our Condensed Matter Experiment initiative with three simultaneous faculty offers made (ad here), and our Physics and Mathematics of the Universe initiative. Five hires were made in the latter (four in Physics one in Math) and these new hires form the core of our new Center for Quantum Mathematics and Physics (https://qmap.ucdavis.edu)
- 3) AY 15-16 Undertook hiring for CME imitative and launched new Astrophysics initiative.
- 4) Restructured the merit advancement documentation into a template format so that key information is easily found and reviewed. Overall workload was reduced and faculty voting participation showed a major improvement.

Meetings Organized/Convened

- 1. <u>Davis Cosmological Frontiers conferences</u> Davis, May 20-25 2013
- 2. <u>COSMO 12</u>, Beijing, September 10-14, 2012
- 3. Challenges for Early Universe Cosmology July 12-16 2011
- 4. <u>COSMO 06</u> September 25-29 2006, Lake Tahoe, CA (member of organizing committee).

- 5. <u>Nobel Symposium on String Theory and Cosmology</u> August 14-19 2004 Sigtuna, Sweden (convener of session on inflation)
- 6. <u>The Davis Meeting on Cosmic Inflation.</u> March 2003 (Chair of organizing committee)
- 7. *Snowmass* 2001 Co-convener of the <u>Early universe cosmology and tests of</u> fundamental physics section.
- 8. *PASCOS 1999*, Lake Tahoe, December 1999 (co-organizer)
- 9. Cosmic Genesis and Fundamental Physics Sonoma 1999 (session convener)
- 10. Workshop on analysis of large astronomical data sets. Isaac Newton Institute, Cambridge, August 1999. (co-organizer)
- 11. *Programme on Complexity, Entropy, and the Physics of Information*. Isaac Newton Institute, Cambridge, May-August 1999. (co-orgnaizer)
- 12. *Early Universe Session*.. Inner Space/Outer Space II David Schramm memorial symposium, May 1999. (session organizer)
- 13. Symposium on Gauge Theory, Cosmology, and Fundamental Physics London, July 1998 (Co-organizer and Member of the Science Committee)
- 14. *The Eighteenth UK Institute for Theoretical High Energy Physicists* St Andrews, 1997 (Member of Scientific Committee)
- 15. *Imperial College international CMB workshop* London April 1997. (principle organizer)
- 16. Defect CMB Workshop, DAMTP, Cambridge, Feb 1996 (co-organizer)

Workshop participation

In addition to the large meetings listed above, I have been active in numerous informal workshops of international standing. For example, below I list such activities covering 1996-2003. In each case participation was by invitation only, and my contributions included presenting talks and other activities.

Defect CMB Workshop, DAMTP, Cambridge, Feb 1996 (co-organizer).

- 1. IC CMB Workshop, Imperial College, London April 1997 (Principle Organizer).
- 2. Workshop on Structure Formation. Aspen Center for Physics, Aspen, June 1997

- 3. *The Sloan Summit On Microwave Foregrounds* Institute for Advanced Study November 14-15, 1998
- 4. Santa Fe Workshop on Cosmology. Santa FE NM, July 1999
- 5. Aspen Workshop on large extra dimensions. August 2000
- 6. Aspen Workshops on String Theory and Cosmology August 2002
- 7. New Horizons in String Cosmology Banff Research Station, June 2004
- 8. Aspen Workshop on *Wide Fast Deep Surveys: New Frontier for Cosmology* June 2009
- 9. Aspen Workshop on Testing General Relativity in the Cosmos June 2009
- 10. Perimeter Institute Workshop on *Holographic Cosmology* July 2009
- 11. Workshop on Inflationary Cosmology CTS Princeton January 2011

Service on Key Panels and Committees

- 1. UC Davis College of Letters and Science Visioning Committee, Fall 2015
- 2. UC Davis Letters and Science Reorganization Workgroup (evaluating options for reorganization of the UC Davis College of Letters and Science). Winter and Spring 2015
- 3. Astronomy and Astrophysics Advisory Committee (AAAC) 2011-2014 (Vice Chair 2012-2013, Chair for 2013-14)
- 4. DoE Dark Energy Science Panel, 2012
- 5. Kavli Institute for Cosmological Physics / Physics Frontier Center External Advisory Board (University of Chicago) 2011-Present
- 6. ASTRO 2010 Decadal Survey Particle Astrophysics and Gravity subcommittee (2009-2010)
- 7. UC Davis 2020 Facilities committee (planning for major new growth at UC Davis)
- 8. Joint Dark Energy Mission Figure of Merit Science Working Group (DoE/ESA/NASA) 2008

- 9. Kavli Institute for Cosmological Physics External Advisory Board (University of Chicago) 2007-2010
- 10. Particle Physics Project Prioritization Panel (P5) 2005 2007
- 11. Astronomy and Astrophysics Advisory Committee and the High Energy Physics Advisory Panel "Dark Energy Task Force" 2005 2006
- 12. Director's physics division review panel member, Lawrence Berkeley Laboratory, November 2005
- 13. SLAC program DOE review panel (2005)
- 14. NASA/DOE "Joint Dark Energy Mission Science Definition Team" 2004 2006.
- 15. DOE review panel member, Review of Lawrence Berkeley Laboratory High Energy Physics program. Feb 2004
- 16. NSF Particle Theory grant review panel (Jan 2004)
- 17. High Energy Physics Advisory Panel (HEPAP) Quantum Universe Committee (Nov 2003- June 2004) http://interactions.org/quantumuniverse/
- 18. UCD Faculty advisory panel member for the recruitment of a new Dean of Mathematical and Physical Sciences. (Spring 2003)
- 19. DOE SNAP Lehman review panel. (July 2002)
- 20. NSF Astronomy grant review panel (March 2001)
- 21. Committee on the International Freedom Of Scientists (of the American Physical Society) 2000-2002.
- 22. Particle Physics Theory Committee (PPTC). of the panels for the Particle Physics and Astronomy Research Council (PPARC) (Assesses theoretical particle physics grants) 1996-1998 (UK)
- 23. Theoretical Research Assessment Panel (TRAP). of the panels for the Particle Physics and Astronomy Research Council (PPARC) (Assesses theoretical astronomy grants) 1996-1998 (UK)
- 24. *Joint Astronomy and Particle Physics Supercomputer panel* (JAPPS) (Plans PPARC supercomputing strategy). 1995-1998 (UK)

Computing Initiatives

- 1. Co-author of the Physics department document proposing the physics department's role in a campus-wide UC Davis computing initiative. 1999
- 2. Co-investigator in the *Fundamental Physics Consortium* providing Supercomputing resources for new projects in Cosmology and Quantum Field Theory. UK 1998
- 3. Founding Co-investigator and project manager for the UK Cosmology Computing Consortium (A dedicated UK cosmology supercomputing facility) 1996-1998

Public Outreach

My colleagues and I energetically advocate cosmology as a showcase field in order to generate wider public understanding of basic research. This has resulted in increased support for cosmology at all levels. My direct personal efforts at communicating with the wider public include:

- Numerous interviews with the media (see http://albrecht.ucdavis.edu/in_the_media.pdf)
- 2. Consultant for the Big Bang exhibit at the National Museum for Science and Industry in London (opened Sep 1996).
- 3. Frequent lectures to school students and other interested members of the public. (see http://albrecht.ucdavis.edu/Public-Lectures.html for recent examples)

Service on Editorial Boards

- 1. Classical and Quantum Gravity (1993-1996)
- 2. *Physical Review D* (2010-2012)