

Curriculum Vitae for Julian Borrill

Contact Information

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Education

1984: MA in Mathematics & Political Science, Trinity College Cambridge
1990: MSc in Information Technology, Queen Mary College London
1990: MSc in Astrophysics, Queen Mary College London
1993: DPhil in Theoretical Physics, University of Sussex

Employment

1993 - 1995: Postdoctoral Researcher, Theoretical Physics Group, Imperial College London
1995 - 1997: Postdoctoral Researcher, Department of Physics & Astronomy, Dartmouth College
1997 - 1999: Postdoctoral Researcher, NERSC Center, Lawrence Berkeley National Laboratory
1999 - 2010: Staff Scientist, Computational Research Division, Lawrence Berkeley National Laboratory
& Research Physicist, Space Sciences Laboratory, UC Berkeley
2010 - present: Senior Staff Scientist, Computational Research Division, Lawrence Berkeley National Laboratory
& Senior Research Physicist, Space Sciences Laboratory, UC Berkeley

Grants

Principal Investigator, NERSC CMB Data Analysis Programs (1999 - present)
Principal Investigator, "Cosmic Microwave Background Analysis Tools - II", NASA Advanced Information Systems Research Program (2001 - 2004)
Principal Investigator, "A High Performance Computing Framework for Cosmic Microwave Background Data Management", NASA Advanced Information Systems Research Program (2007 - present)
Principal Investigator, "Planck Data Analysis", NASA/US Planck (2003 - 2014)
Co-Investigator, "Simulations And Analysis of Cosmic Microwave Background Polarization Data At The Petascale And Beyond", NSF Petascale Applications Program (2009 - 2014)
Co-Investigator, "Microwave Data Analysis for Petascale Computers", Agence Nationale de la Recherche (2010 - 2013)

Awards

LBNL Outstanding Performance Award (2003)
LBNL Spot Award (2003, 2005)
NASA Public Service Award - "For outstanding achievement in developing the supercomputing infrastructure for the U.S. Planck team." (2010)
NASA Public Service Award - "For outstanding participation as a partner with European colleagues in conceiving and implementing the overall data analysis strategy for the Planck mission." (2010)

Synergistic Activities

Chair, NASA 2006 Mission Operations & Data Analysis Senior Review
Member, NASA 2004 Mission Operations & Data Analysis Senior Review
Member, NASA Science Archive Working Group (2003 - 05)
Member, NASA Universe Working Group (2006 - 07)
Member, NASA Primordial Polarization Program Definition Team (2008 - 10)
Member, NERSC User Group Executive Committee (2008 - present)
Invited Participant, DOE Large Scale Computing & Storage Requirements for HEP workshop (2009, 2012)
Reviewer, NASA AISR Program (2005, 2007)
Reviewer, NASA New Technology Refresh (2007)
Reviewer, DOE/NSF Dark Energy Survey (2007 - present)
Reviewer, NSF Laser Interferometer Gravitational Wave Observatory (2009, 2012)
Computational Systems Architect, US Planck collaboration (2006 - present)

Supervision

Computer systems engineers: Reese Baird, Christopher Cantalupo, Aaron Collier, Reijo Keskitalo, Theodore Kisner.
Postdoctoral researchers: Gayoung Chon, Sara Ricciardi, Federico Stivoli, Radoslaw Stompor, Rajesh Sudarsan.
Summer Students: Giancarlo de Gasperis, Louise Griffiths, Mark Krumholz, Jon Urrestilla.