# JEFFERY THOMAS MITCHELL

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**CURRENT POSITION** :

Physicist, Brookhaven National Laboratory

February 1995 – present

**EDUCATION**

- 1986-1992
  - Yale University, New Haven, CT

    Ph.D. December 1992
    - Dissertation titled "Forward Baryon Distributions in Relativistic Heavy Ion Collisions."

    M.S. May, 1988.

    M. Phil. May, 1988.
- 1982-1986
  - Louisiana State University in Shreveport, Shreveport, LA.

    B.S.: May, 1986.

**PREVIOUS WORK EXPERIENCE**

June, 1992 - Jan, 1995

- Postdoctoral Fellow

  Lawrence Berkeley Laboratory

  Projects: NA35 hadron data analysis, STAR TPC R&D, Microstrip Gas Chamber R&D, STAR event reconstruction software development.

Summer, 1985

- Summer Research Participant Oak Ridge Associated Universities

  Oak Ridge National Laboratory

Project: Redesign of the acceleration tubes in the Oak Ridge 25URC tandem accelerator.

**Awards**

* Louisiana State University in Shreveport Distinguished Alumni Award - 2012
* Brookhaven National Laboratory Sambamurti Award - 2001

## TEACHING AND MENTORING EXPERIENCE

Yale University Undergraduate Courses ( Graduate Student Teaching Assistant )

- Spring 1992: Graduate Physics Laboratory - Nuclear Physics
- Fall 1991: Mathematical Physics
- Spring 1991: General Physics Graduate Courses
- Spring 1990: Graduate Physics Laboratory - Solid State Physics
- Fall 1989: Electrodynamics
- Spring 1989: Advanced Physics Laboratory
- Fall 1988: Computational Physics
- Fall 1986, 1987: General Physics Laboratory
- Spring 1988: Quantum Mechanics
- Spring 1987: General Physics Laboratory
- Spring 1986: Undergraduate Physics Tutor

- Mentored M. Sun and M. Dai – BNL SULI Summer Student Program – Summer 2011, Summer 2012
- Mentored R. Armanderiz – BNL VFP Program – Summer 2011
- Supervised Ph.D. defense for Raul Armanderiz, May 13, 2007
- Mentored R. Armanderiz – PHENIX Graduate Student – August 2004 to August 2006
- Supervised S. Burke – SUNY Stony Brook Summer Student Program – Summer 2001
- Mentored D. Silvermyr - PHENIX Graduate Student - October, 1999 to October, 2000
- Supervised M. Hoffman - BNL Summer Student Program - Summer 1996
- Supervised W. Howe - ICSEE program - Summer 1994

I have given many presentations to high school students and the general public about heavy ion physics, the RHIC collider, and the PHENIX as a representative of the BNL Physics Department and PHENIX from 1997 to the present. I have been a lecturer for the BNL Summer Student Program for five years and have participated in many RHIC open houses to the public. I am a

contributor to the BNL Online Classroom Project. I have created several educational RHIC animations and images that have appeared in many major newspapers and newscasts. I have always given education a high priority.

## PROFESSIONAL MEMBERSHIP

- American Physical Society
- APS Division of Nuclear Physics

### Committee Membership

* July 2013 – Present: Member, Organizing committee for the Workshop on the Critical Point and Onset of Deconfinement
* January 2010 – December 2011: PHENIX Data Production Manager
* January 2010 – December 2011: Member, PHENIX Detector Council
* October 2010 – October 2011: BNL Nuclear Physics Seminar Committee
* October 2009 – October 2010: Chair, BNL Nuclear Physics Seminar Committee
* October 2008 – October 2011: BNL Nuclear Physics Seminar Committee
* May 2003 – January 2007: BNL Association of Students and Post-docs Advisory Board
* December 2003 – July 2004: ISMD “Multiparticle Dynamics” Conference Local Organizing Committee.
* May 2002 – May 2003: BNL Quality-of-Life Committee
* March 2002 – July 2004: PHENIX Global Physics Working Group Convenor
* January 2000 – October 2002: RHIC/AGS User's Executive Committee
* October 1999 - September 2000, October 2003 – September 2004: Chairman of the BNL Nuclear Physics Seminar Committee
* January 2000 – January 2001: Quark Matter 2001 Conference Local Organizing Committee and Program Committee

**SCIENTIFIC PUBLICATIONS**

**Total Number of Publications: 178**

**Total Number of Conference Proceeding Papers: 230**

**Total Number of Books or Book Chapter Contributions: 1**

**Total Number of Independent Citations: 17,394**

**Total Number of Independent Citations in Published Journals: 17,245**

***Significant Publications in the Past 5 Years:***

- *J/Psi suppression at forward rapidity in Au+Au collisions at sqrt(sNN)=30 and 62.4 GeV,* A. Adare et al., Phys. Rev. C86 (2012) 064901.
- *Evolution of Pi0 Suppression in Au+Au Collisions from sqrt(sNN)= 39 to 200 GeV* , A. Adare et al., Phys. Rev. Lett. 109 (2012) 152301.
- *Measurements of Higher-Order Flow Harmonics in Au+Au Collisions at sqrt(sNN)=200 GeV,* A. Adare et al., Phys. Rev. Lett. 107 (2011) 252301.
- *Enhanced production of direct photons in Au+Au collisions at sqrt(sNN)=200 GeV and implications for the initial temperature,* A. Adare et al., Phys. Rev. Lett. 104 (2010) 132301.
- *Detailed measurement of the e+e- pair continuum in p+p and Au+Au collisions at sqrt(sNN)=200 GeV and implications for direct photon production,* A. Adare et al., Phys. Rev. C81 (2010) 034911.

***Most Significant Publications:***

- *Charged hadron multiplicity fluctuations in Au+Au and Cu+Cu collisions from sqrt(sNN)=22.5 to 200 GeV,*
  A. Adare et al., Phys. Rev. C78 (2008) 044902.
- *Formation of dense partonic matter in relativistic nucleus-nucleus collisions at RHIC: Experimental evaluation by the PHENIX Collaboration,* K. Adcox et al., Nucl. Phys. A757 (2005) 184.
- *Measurement of non-random event-by-event fluctuations of average transverse momentum in sqrt(sNN)=200 GeV Au+Au and p+p collisions,* S.S. Adler et al., Phys. Rev. Lett. 93 (2004) 092301.
- *Elliptic flow of identified hadrons in Au+Au collisions at sqrt(sNN)=200 GeV,* S.S. Adler et al., Phys. Rev. Lett. 91 (2003) 182301.
- *Suppression of hadrons with large transverse momentum in central Au+Au collisions at sqrt(sNN)=130 GeV,* K. Adcox et al., Phys. Rev. Lett. 88 (2002) 022301.