Curriculum Vitae

Kaushik De
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Education and Training

B.A./M.A., *Physics/Honors Curriculum, Summa Cum Laude*, Hunter College of CUNY, Class Rank 1/734	**1978-81**
Sc.M., *Physics*, Brown University	**1982**
Ph.D., *Physics*, Brown University	**1988**

Research and Professional Experience

Director, Center of Excellence in HEP, UT Arlington	**2011-**
Professor, University of Texas at Arlington	**2003-**
Associate Dean, Honors College, UT Arlington	**1999-2003**
Associate Professor, University of Texas at Arlington	**1997-2003**
Assistant Professor, University of Texas at Arlington	**1993-1997**
Research Fellow, University of Michigan	**1989-1992**
Research Associate, Indiana University	**1988-1989**

Publications – closely related to proposed project

1. The ATLAS Experiment at the CERN Large Hadron Collider, The ATLAS Collaboration, G. Aad et al., JINST 3 (2008) S08003.
2. The ATLAS Simulation Infrastructure, The ATLAS Collaboration, G. Aad et al., Eur. Phys. J. C (2010) 70: 823–874.
3. Contributions to CHEP15 (eight papers on Computing in HEP): http://indico.cern.ch/event/304944/session/10/contribution/100/author/2.
4. Search for direct top-squark pair production in final states with two leptons in pp collisions at sqrt(s) = 8 TeV with the ATLAS detector, The ATLAS Collaboration, G. Aad et al., Journal of High Energy Physics (2014) 2014:124.
5. ATLAS Run 1 searches for direct pair production of third-generation squarks at the Large Hadron Collider, The ATLAS Collaboration, G. Aad et al., Eur. Phys. J. C (2015), 75:510.

Synergistic Activities

a) **Leadership in Physics at the New Frontier**: leading a large group of researchers and students at UTA in the cutting edge research projects in the ATLAS experiment at the Large Hadron Collider at CERN, Geneva, Switzerland, since 1995. Many masters and Ph.D. students and postdocs in Physics supervised.

b) **Big Data Innovation**: led the development of a new paradigm in computing over the past decade: the PanDA software, which provides physicists automatic access to hundreds of supercomputing centers internationally. Thousands of physicists analyze data and publish results in multiple High Energy Physics (HEP)

experiments using PanDA. Supervised/co-supervised many masters and Ph.D. theses in Computer Science on PanDA.

c) **New Discoveries**: played key roles in many aspects of the HEP experiments that discovered two fundamental particles in physics over the past two decades: the top quark at the Tevatron, and the Higgs boson at the LHC.

d) **New Physics searches**: early proponent of the search for the supersymmetric partner of the top quark in both the D0 and the ATLAS experiments at the LHC. Supervised multiple Ph.D. students who completed theses in D0 and ATLAS on this topic.

e) **Supercomputing technology**: founding director of the SouthWest Tier 2 supercomputing center, located at UTA and Oklahoma University. Funded by multiple grants from National Science Foundation, and the Department of Energy.

Collaborators

The D0 collaboration (see http://www-d0.fnal.gov/~madaras/authorlist.html)
The ATLAS collaboration (see http://graybook.cern.ch/programmes/experiments/lhc/ATLAS.html)

Graduate and Postdoctoral Advisors

Prof. Mildred Widgoff (Brown University), Prof. Andrej Zieminski (Indiana University), Prof. Homer Neal (University of Michigan).

Graduate Student Advisees

Yan Song (IBM), Barry Spurlock (UTA), Rishiraj Pravahan (AT&T), Smita Darmora (UTA), Jared Little (UTA), Ted Eltzroth (unknown), Nevzat Guler (unknown), Richard Kaiser (NRC), Yu Xia (unknown).

Postdoctoral Associates

Elizabeth Gallas (Oxford), Jia Li (deceased), Mark Sosebee (UTA), Armen Vartapetian (UTA), Nurcan Ozturk (UTA), Paul Nilsson (BNL), Alden Stradling (UTA), Giulio Usai (UTA), David Cote (Ciena).