

Biographical Sketch

Bhaskar Dutta, Ph.D.

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Professional Preparation:

Oklahoma State University, Ok, US,	Theoretical Physics,	Ph.D., 1995
Calcutta University, Calcutta, India,	Physics,	M.S., 1990.
Presidency College, Calcutta University, Calcutta, India,	Physics,	B.S., 1988.

Appointments:

2009 –present: Professor, Physics Department, Texas A&M University
2005-2009: Associate Professor, Physics Department, Texas A&M University;
2002-2005: Assistant Professor, Physics Department, University of Regina, Canada;
1998-2002: Research Associate, Physics Department, Texas A&M University
1995-1998: Research Associate, Physics Department, University of Oregon

Awards and Honors:

Holder of Mitchell-Heep Chair in High Energy Physics since 2019; Distinguished Alumni Award, Oklahoma State University, 2017; Association of Former Students College-Level Distinguished Achievement Award, 2012

10 Recent Publications (last 3 years):

1. New Directions for Axion Searches via Scattering at Reactor Neutrino Experiments, J. Dent, B. Dutta, D. Kim, S. Liao, R. Mahapatra, **Phys.Rev.Lett.** **124 (2020) 21, 211804**
2. Dark matter signals from timing spectra at neutrino experiments, B. Dutta, D. Kim, S. Liao, J-C Park, S. Shin, **Phys.Rev.Lett.** **124 (2020) 12, 12180**
3. Searching for Beyond the Standard Model Physics with COHERENT Energy and Timing Data, B. Dutta, S. Liao, S. Sinha, L. Strigari, **Phys.Rev.Lett.** **123 (2019) no.6**
4. A sub-GeV dark matter model, B. Dutta, S. Ghosh, J. Kumar, **Phys. Rev. D** **100 (2019) 075028**
5. A theory of R(D*, D) anomaly with right-handed currents, K.S. Babu, B. Dutta, R. N. Mohapatra, **JHEP** **1901 (2019) 168**
6. Coherent elastic neutrino nucleus scattering as a probe of a Z' through kinetic and mass mixing effects, M. Abdullah, J. B. Dent, B. Dutta, G.L. Kane, S. Liao, L. E. Strigari, **Phys. RevD.** **98 (2018) no.1, 015005.**
7. Accelerator and reactor complementarity in coherent neutrino-nucleus scattering, J. Dent, B. Dutta, S. Liao, J. Newstead, L. Strigari, J. Walker, **Phys.Rev.** **D97 (2018) no.3, 035009**
8. 21 cm limits on decaying dark matter and primordial black holes, S. Clark, B. Dutta, Y. Gao, Y-Z Ma, L. Strigari, **Phys.Rev.** **D98 (2018) no.4, 043006**
9. Non-standard interactions of solar neutrinos in dark matter experiments, B. Dutta, S. Liao, L. Strigari, J. Walker, **Phys.Lett.** **B773 (2017) 242.**
10. Probing light mediators at ultralow threshold energies with coherent elastic neutrino-nucleus scattering, J. Dent, B. Dutta, S. Liao, L. Strigari, J. Walker, **Phys.Rev.** **D96 (2017) no.9, 095007**

Total Publications: 190 papers in major journals with ~ 5600 citations for citable paper (Ref: <https://inspirehep.net/authors/1011141>)

Synergistic Activities:

(a) Invited Talks at workshops and conferences (last 3 years): Snowmass- Neutrino Theory Mini workshop, 2020; CAPP @ Rice Univ.-2019; Fund. Phys. at the 2nd Target Station FPSTS, Oak Ridge, TN (2019); NTN workshop (Washington Univ., St. Louis-2019; Opportunities at future collider, Madrid, Spain; ν -electron scattering workshop-Univ. Mass.-2019, Magnificent CEvNS (Univ. of Chicago 2018), LHCP (Bologna)-2018, WIN 2017 (Irvine, CA), Santa Fe workshop on particle physics (NM, 2017), Dark Matter 2017(Sao Paolo, Br).

(b) Invited Contribution (last 3 years): Invited to contribute to Annual Review of Nuclear and Particle Science, Invited to contribute to the Neutrino Non-Standard Interactions: A Status Report; Invited to contribute to SUSY at the LHC, PoS LHCP2018 (2018) 160

(c) Conference Organizer (last 3 years): SUSY-2019, Corpus Christi, Tx, Organized and co-chaired Neutrino, Dark Matter and Collider Workshops 2013-19, TAMU; Organized Interconnection between Particle physics and Cosmology(PPC) 2017, Corpus Christi[we initiated PPC at TAMU in 2007]

(d) Referee: DOE, NSF and various international grants, Phys. Rev. Letters, Phys. Rev. D, Physics Lett. B, JHEP, JCAP, Nuclear Physics B

Funding: Department of Energy (2007-2010), (2010-2013), (2013-2016), (2016-2017), (2017-2020), College of Science, Strategic Transformative Research Program Funds 2018-2019; Fermilab neutrino program funding, 2019; NSF funding to organize workshop (2019, 2015,2013); DOE funding to organize workshop (2019, 2015,2012); Conacyt funding to organize PPC in Mexico (2014); IRTAG travel grant (TAMU); NSF-Research Experiences for Undergraduates (Co-PI)(2007-08).

Current Ph.D. Degree Research Students and Postdoctoral Researcher

Shu Liao, Sumit Ghosh, Adrian Thomson (Graduate Students), Dr. M. Abdullah (post-doctoral fellow)

Postdoctoral Researchers Supervised (current location)

Prof. Jason Kumar (Dept. of Phys., University of Hawaii), Prof. Nikolay Kolev (Dept. of Phys., Univ. of Regina, Canada), Prof. Yukihiro Mimura (Dept. of Phys., National Taiwan University), Prof. James Dent (Dept. of Phys., Sam Houston State University), Prof. Louis Leblond (Dept. of Phys. Penn State University), Prof. Kuver Sinha (Dept. of Phys., University of Oklahoma), Prof. Yu Gao (IHEP, Beijing) Prof. Peisi Huang (University of Nebraska)

Graduate Students Supervised (current location)

Dr. Steven Clark (Brown University), Prof. Esteban Jimenez (Dept. of Phys., University of Costa Rica), Prof. Sean Wu (Dept. of Phys. University of Cincinnati), Dr. Tathagata Ghosh (Dept. of Phys., University of Hawaii), Prof. Kechen Wang (Dept. Of physics, Wuhan university), Dr. Sean Downes (Dept. of Phys University of Taiwan), Dr. Abram Krislock (Dept. of Phys University of Oslo, Norway), Dr. Sheldon Campbell (Dept. of Phys., University of California, Irvine).

Advisory Committees

Member of International Advisory Committee for SUSY conference, PPC conference, BCVSPIN: Advanced Study Institute in Particle Physics and Cosmology