Benjamin Jones

Biographical Sketch

Education and Training

Mass. Institute of Technology	Ph.D. in Physics	2010-2015
University of Bristol	Undergraduate research assistant	2009-2010
Cambridge University	B.A. M.Sci (Nat Sci)	2004-2009

Research and Professional Experience

Assistant Professor	University of Texas at Arlington	2016-present
University of Texas at Arlington	Postdoctoral researcher	2015-2016

Selected Publications (ordered by relevance)

1. *Improved TPB-coated Light Guides for Liquid Argon TPC Light Detection Systems*, Z. Moss, L. Bugel, G. Collin, J.M. Conrad, B.J.P. Jones, J. Moon, M. Toups and T. Wongjirad JINST 10 (2015) no.08, P08017
2. *Demonstration of a Lightguide Detector for Liquid Argon TPCs* L. Bugel, J.M. Conrad, C. Ignarra, B.J.P. Jones, T. Katori, T. Smidt and H.-K. Tanaka, Nucl.Instrum.Meth. A640 (2011) 69-75
3. *A Simulation of the Optical Attenuation of TPB Coated Light-guide Detectors* B.J.P. Jones JINST 8 (2013) C10015
4. *Photodegradation Mechanisms of Tetraphenyl Butadiene Coatings for Liquid Argon Detectors,* B.J.P. Jones, J.K. VanGemert, J.M. Conrad, A. Pla-Dalmau, JINST 8 (2013) P01013
5. *The Effects of Dissolved Methane upon Liquid Argon Scintillation Light* B.J.P. Jones, T. Alexander, H.O. Back, G. Collin, J.M. Conrad, A. Greene, T. Katori, S. Pordes and M. Toups, JINST 8 (2013) P12015
6. *A Measurement of the Absorption of Liquid Argon Scintillation Light by Dissolved Nitrogen at the Part-Per-Million Level,* B.J.P. Jones, C.S. Chiu, J.M. Conrad, C.M. Ignarra, T. Katori and M. Toups JINST 8 (2013) P07011
7. *Single Molecule Fluorescence Imaging as a Technique for Barium Tagging in Neutrinoless Double Beta Decay,* B.J.P. Jones, A.D. McDonald, D.R. Nygren, arXiv1609:04019, (2016) submitted to JINST
8. *Searches for Sterile Neutrinos with the IceCube Detector,* M.G. Aartsen *et al*. (IceCube Collaboration), Phys.Rev.Lett. 117 (2016) no.7, 071801
9. *Dynamical pion collapse and the coherence of conventional neutrino beams* B.J.P. Jones, Phys.Rev. D91 (2015) no.5, 053002
10. *Testing of High Voltage Surge Protection Devices for Use in Liquid Argon TPC Detectors* J. Asaadi, J.M. Conrad, S. Gollapinni, B.J.P. Jones, H. Jostlein, J. M. St. John, T. Strauss, S. Wolbers and J. Zennamo, JINST 9 (2014) P09002

Synergistic Activities

1. Served as reviewer for Department of Energy SBIR (Small Business Innovation and Research) proposals.

2. Field cage project leader for the NEXT experiment

3. Served as analysis reviewer for two IceCube oscillations working group physics analyses.

4. Organizer of UTA high energy physics summer school 2016

5. Recent outreach talks:
   "A Taste of Research at UTA", Talk for high school students visiting UTA physics department
   "*Neutrino Telescopes and New Physics"* Lunch Talk for the UTA Society of Physics Students
   "*Detecting Neutrinos with Liquid Argon"*, public talk and museum event for the Neutrino2014 conference
   "*From Symmetries to Neutrinos"*, after-school talk on physics for 16-18 year olds at King Edwards School, Stratford-Upon-Avon, UK
   "*Discovering the Ingredients of the Universe"*, Guest lecture for "From Big Bangs to Black Holes" physics course at Roosevelt University, Chicago, IL

Collaborators

IceCube Collaboration	2014 – present
NEXT Collaboration	2015 – present
DUNE Collaboration	2013 – present
MicroBooNE Collaboration	2010 – 2015

Collaborators and Co-editors:

Arguelles Delgado, Carlos (MIT), Back, Henning (Princeton), Grant, Darren (University of Alberta), Gollapini, Sowjanya (KSU), Halzen, Francis (UW Madison), Jostlein, Hans (Fermilab), Karle, Albrecht (UW Madison), Katori, Teppei (Queen Mary University of London), Koskinen, Jason (NBI Copenhagen), Lockwitz, Sarah (Fermilab), Mufson, Stuart (Indiana University), Pordes, Stephen (Fermilab), Salvado Serra, Jordi (IFIC Valencia), St John, Jason (Fermilab), Strauss, Thomas (Fermilab), Toups, Matthew (Fermilab), Wolbers, Steven (Orgeon State University)

Graduate and Postdoctoral Advisors and Advisees:

Conrad, Janet (MIT) – Graduate Advisor
Nygren, David (UT Arlington) – Postdoctoral Advisor