

Abaz Kryemadhi

CONTACT INFORMATION

Dept. of Computing, Math & Physics
Messiah University
Suite 3041
One University Ave
Mechanicsburg, PA 17055 USA

(717) 796-1800 ext.2384

E-mail: akryemadhi@messiah.edu

EDUCATION

- Ph. D., Physics, December 2004
Indiana University, Blomington, Indiana USA
- M. Sc., Physics, February 2000
Indiana University, Blomington, Indiana USA
- Diplom Physik, Physics, May 1998
University of Siegen, Siegen, Germany
- B. S., Physics, June 1996
University of Tirana, Tirana, Albania

PROFESSIONAL HISTORY

- Professor of Physics, **Messiah University**, Mechanicsburg, PA **August 2021 - present**
- Associate Professor of Physics, **Messiah University**, Mechanicsburg, PA **Aug. 2015 - July 2021**
- Assistant Professor of Physics, **Messiah University**, Mechanicsburg, PA **Aug. 2006 - July 2015**
- Postdoctoral Researcher based at Fermi National Laboratory,
University of Virginia, Charlottesville, VA **February 2005 - July 2006**

TEACHING EXPERIENCE

- Messiah University**
- General Physics I & II (Calc. based), Introductory Physics I & II (algebra based)
 - Modern Physics, Quantum Mechanics, Particle Physics

RESEARCH INTEREST

- Research Focus on detectors and techniques in Astroparticle Physics

SELECT TALKS

- Madison, WI, ICRC2019, "Development of a Water Cherenkov Detector Prototype with Wavelength Shifters and Silicon Photomultiplier Readout", **July 24-August 1, 2019**
- Tirana, Albania, LHC Results Workshop, "Searching for exotic features in cosmic ray showers", **Oct 9-12, 2018**
- Tours, France, NDIP17, "A LYSO crystal array readout by silicon photomultipliers as compact detectors for space applications", **July 3-7, 2017**
- Siena, Italy, IPRD16, "Performance of LYSO and CeBr3 crystals readout by SiPM arrays as compact detectors for space based applications", **Oct 3-6, 2016**
- Physics Department, University of Maryland College Park, "Cerium Bromide and LYSO crystals readout with Silicon Photomultipliers as compact detectors for space". **March 7, 2016**

- ISS-CREAM Collab., University of Maryland College Park, “Development of an Event monitoring system for CREAM experiment on board of International Space Station”. **Feb 4, 2016**
- Salt Lake City, UT
The Annual meeting of American Physical Society. Study the performance of LYSO and CeBr3 crystals using Silicon Photomultipliers. **April 17, 2015**
- Fermi National Laboratory CDMS experiment (teleconference), “Optical Simulations for the neutron veto detector”. **Jan 28, 2014**
- Fermi National Laboratory CDMS experiment, “Light efficiency studies for the neutron veto detector”. **Dec 17, 2012**
- University of Virginia, VA.
“Radio detection of High Energy Cosmic Rays”. **Nov 2, 2011**

SELECT PUBLICATIONS

- I have authored and co-authored hundreds of publications, for the complete list of publications see:
https://www.researchgate.net/profile/Abaz_Kryemadhi
<https://scholar.google.com/citations?user=5WgHRY0AAAAJ&hl=en&oi=ao>
- K. Zioutas, G. Cantatore, M. Karuza, A. Kryemadhi, M. Maroudas, Y.K. Semertzidis, *Response-suggestion to The XENON1T excess: an overlooked dark matter signature?*, arXiv:2006.16907, (2020)
- A. Kryemadhi, B. Weindorf, A. Kendall, T. Luu, H. Hawbecker, *Development of a Water Cherenkov Detector Prototype with Wavelength Shifters and Silicon Photomultiplier Readout*, Proc. Science, **ICRC2019**, 322
- A. Kryemadhi, L. Barner, A. Grove, J. Mohler, A. Roth, *A LYSO crystal array readout by silicon photomultipliers as compact detectors for space applications*, NIM A **912**, (2018) 93-96
- M. Bressler, L. Goodwin, A. Kryemadhi, *Cosmic Ray Topography*, American Journal of Physics, **85** (11), (2017) 840
- A. Kryemadhi, L. Barner, A. Grove, J. Mohler, C. Sisson, A. Roth, *Performance of LYSO and CeBr3 crystals readout by silicon photomultiplier arrays as compact detectors for space based applications*, JINST **12** (2017) no.02, C02013
- Abaz Kryemadhi and Kyler Chrestay, *Gamma ray spectroscopy with a silicon photomultiplier and a LYSO crystal*, Am. J. Phys. **83** (2015) 378
- M. I. Bakunov, A. V. Maslov, A. L. Novikovskaya, A. Kryemadhi, *The no-reflection regime of radar detection of cosmic ray air showers*, New J. Phys. **17** (2015) 053015
- M. I. Bakunov, A. V. Maslov, A. L. Novikovskaya, A. Kryemadhi, *Prospects for radar detection of cosmic ray air showers with medium-frequency radio waves*, New J. Phys. **15** (2013) 113027
- M. I. Bakunov, A. V. Maslov, A. L. Novikovskaya, A. Kryemadhi, *Relativistic effects in radar detection of ionization fronts produced by ultra-high energy cosmic rays*, Astropart. Phys. **33** (2010) 335
- J. M. Link et al., *The $K^-\pi^+$ S-wave from the $D^+ \rightarrow K^-\pi^+\pi^+$ Decay*, Phys. Lett. B **681**, 14 (2009).
- V. M. Abazov et al, *Search for flavor-changing-neutral-current D meson decays*. Phys. Rev. Lett **100**, 101801 (2008).
- J. M. Link et al., *Search for a pentaquark decaying to Cascade- π^-* , Phys. Lett. B **661**, 14 (2008).
- V. M. Abazov et al, *Measurement of the Λ_b lifetime in the decay $\Lambda_b \rightarrow J/\psi \Lambda$* Phys. Rev. Lett **99**, 142001 (2007).
- V. M. Abazov et al, *Measurement of the Λ_b lifetime in the decay $\Lambda_b \rightarrow J/\psi \Lambda$ with the DØ Detector*. Phys. Rev. Lett. **94**, 102001 (2005).
- J. M. Link et al., *Charm system tests of CPT and Lorentz invariance with FOCUS*, Phys. Lett. B **556**, 7 (2003).