

Alvine Christelle Kamaha, PhD

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PROFILE

Researcher and Educator in Theoretical and Experimental physics passionate about Astroparticle Physics (Neutrino Physics and Dark Matter searches) and Science, Technology, Engineering, and Mathematics (STEM) education and outreach geared towards the younger generation and visible minorities in STEM. Strong background in Theoretical High Energy Physics and Experimental Astroparticle Physics with specialization in Bubble Detector Technology and Spherical Proportional Counters. Experienced in generating original ideas and inter-disciplinary research. Involved in intensive collaborations in writing articles in the field of Astroparticle Physics. Well versed in both Theoretical and Experimental approaches. Mentor for Women in Science and Engineering. Motivational speaker for girls in science. Full proficiency in both French and English. Self-motivated, hardworking and always looking for new challenges to apply acquired skills and learn new ones.

PROFESSIONAL EXPERIENCE

- Assistant Professor, Department of Physics and Astronomy, University of California, Los Angeles, Nov. 2021 - Present
- Postdoctoral Research Fellow, Department of Physics, University at Albany SUNY (LZ experiment), April 2018- Present
- Postdoctoral Research Fellow, Department of Physics, Queen's University (NEWS-G experiment), June 2015- May 2017
- Postdoctoral Research Fellow, Department of Physics, Queen's University (PICO experiment), March 2015- May 2015
- Research Assistant, Department of Physics, Queen's University (PICASSO experiment), Sept.2009- Feb. 2015
- Teaching Assistant, Department of Physics, Queen's University, September 2009- April 2015
- Database Administrator Assistant, the Aboriginal Access to Engineering Program, Faculty of Engineering & Applied Sciences, Queen's University, September 2011 - April 2012

EDUCATION

- PhD in Experimental Astroparticle Physics, Queen's University, Canada June 2015
Specialized in Dark Matter Search with bubble detector technology
- MSc in Experimental Astroparticle Physics, Queen's University, Canada April 2011
Specialized in Dark Matter Search with bubble detector technology
Promoted to PhD program in April 2011
- MSc in Theoretical High Energy Physics, Abdus Salam International Centre for Theoretical Physics, Italy August 2009
Specialized in Theoretical Neutrino Physics
- MSc in Theoretical Atomic Physics, University of Douala, Cameroon December 2007
Specialized in Theoretical Atomic Physics
- BSc in Physics, University of Douala, Cameroon July 2006
University of Douala, Department of Physics, Cameroon,

ACADEMIC AWARDS AND SCHOLARSHIPS

- 2019 University at Albany Women In Science and Health Award (Excellence in Science and life), USA
- 2009-2015 Queen's Graduate Award (\$13,666), Queen's University, Kingston, Canada
- 2009-2015 Carl Reinhardt Fellowship (\$32,104), Queen's University, Kingston, Canada
- 2013-2014 Marie Mottashed Graduate Award (\$25,000), Queen's University, Kingston, Canada
- 2012-2013 Graham Millington and John Stroud Graduate Award in Physics (\$2,500), Queen's University, Kingston, Canada
- 2011-2012 Graham Millington and John Stroud Graduate Award in Physics (\$2,500), Queen's University, Kingston, Canada
- Selected to participate to the 60th Meeting of Nobel Laureates, 3rd Interdisciplinary Meeting (2010), Lindau, Germany
- 2008-2009 Abdus Salam ICTP scholarship (€9,600), Abdus Salam International Centre for Theoretical Physics, Trieste, Italy
- 2007 Female Academic Excellence (70,000 XAF), University de Douala, Douala Littoral, Cameroon

RESEARCH & MANAGEMENT EXPERIENCE

- LZ Calibrations Analysis Deputy November 2020 – Present
 - Oversee of analysis of calibrations data to ensure analysis deliverables are obtained in timely manner.

- LZ Calibrations Operations Coordinator (L3 DOE Manager) October 2019 - Present
 - Oversee the completion of procurement of the different calibration sources and systems.
 - Oversee the commissioning and operation of the different calibration systems.
 - Manage the experiment calibrations plans for technical commissioning, physic commissioning and post science runs for better understanding of the detector responses to various radiations and particles interactions to enable us to confidently claim a signal discovery or set a limit.
 - Organize user training to ensure necessary manpower during various calibration campaigns.
 - Travel to the assembly site where I supervise the installation of the different calibration systems and work hands-on on their installation as well.
 - Responsible for understanding how and when the calibrations sources and systems scope changes, and to communicate this to the operation manager or to the change control board; this includes keeping the operation budget for these sources and systems up-to-date by constantly communicating with different institutions involved to understand new needs when they arise.

- Member of LZ Dark Matter experiment Technical Board October 2019 - Present

- Member of LZ Dark Matter experiment Detector Performance Committee October 2019 - Present

- Post-doctoral Research Fellow April 2018 - Present
LZ Dark Matter experiment, University at Albany SUNY, Albany NY, USA
 - Managing, overseeing and directing, as LZ cleanliness expert, the LZ cleanliness program to monitor and mitigate against ambient contaminants during the building of the experiment at the Sanford underground laboratory
 - Developing cleanliness protocols and procedures and managing LZ personnel to ensure their compliance to developed purity protocols and procedures, without which the LZ experiment cannot succeed
 - Estimate daily contamination rate from ambient contamination for feedback to collaboration and personnel working on assembly
 - Regular trips to the assembly facility to assist with detector assembly and in-situ cleanliness monitoring
 - Developing, organizing, and improving LZ information repository for daily estimation and record of ambient contamination.
 - Co-author of the LZ assay and cleanliness paper published in 2020.
 - Main part in the data analysis
 - Lead on new background studies which will allow LZ to reach its targeted sensitivity
 - Conduct Data quality check of mockup data, study and mitigation of pathological events and veto cuts efficiency to enable a fast turnaround of the analysis of real data when LZ will become operational in 2020
 - Energy calibration study in the skin veto volume for better understanding of veto and background removal
 - In charge of setting up a test facility for LZ related R&D projects at the University at Albany, SUNY
 - Co-supervise students in research projects

- Post-doctoral Research Fellow June 2015- May 2017
NEWS-G Dark Matter experiment, Queen's University, Kingston ON, Canada
 - Co-responsible of the calibration system (crucial in understanding the detector functioning before setting sensitivity limits or claiming Dark Matter discovery) of NEWS_G experiment to be installed at SNOLAB underground laboratory in a few years.
 - Designed the laser light calibration system and successfully tested its mockup
 - Co-designed the radioactive source calibration system
 - Defined and characterized all the calibration sources needed by NEWS-G experiment
 - Produced operation and safety manuals for procured radioactive sources to meet strict requirements of SNOLAB underground laboratory

- Contacted companies to procure standard and customized products for the two calibration systems
- Designed a suitable laser light source in collaboration with engineers from laser manufacturing company
- Designed capsules for encapsulation of procured radioactive sources to meet strict requirements of SNOLAB underground laboratory for its personnel safety protection
- Managed NEWS-G test facility at Queen's University twice a week
- Main part in NEWS-G data analysis
 - Preliminary Dark Matter extraction limits from prototype data collected in Modane laboratory in 2015
 - Preliminary pulse simulation and background modeling; comparison with calibration data showed very good agreement and enabled the understanding of pulse generation in NEWS-G detector, which is key to estimate NEWS-G sensitivity to Dark Matter
 - Development of complex algorithms for quality control of prototype data taken in Modane laboratory for quick feedback to run manager such that only good data are collected
- Co-supervise students in Summer research projects
- Postdoctoral Research Fellowship March 2015- May 2017
 PICO Dark Matter experiment, Queen's University, Kingston ON, Canada
 - Background study and data analysis using a Wavelet analysis software developed during my PhD program
- Research Assistantship Sept.2009- Feb. 2015
 PICASSO Dark Matter experiment, Queen's University, Kingston ON, Canada
 - Study of main undesirable background to PICASSO experiment (neutron particles) and its reduction using Geant4 Monte Carlo simulations and in-situ measurements
 - Design and construction of moderator boxes for neutron flux measurements and study
 - Responsible of the upgrade to the data acquisition software to adjust to change in electronics to yield higher discrimination power against backgrounds to enable PICASSO to reach targeted sensitivity
 - Development of a wavelet analysis software suitable for bubble technology and application to PICASSO data to remove mystery events yielding a better sensitivity to Dark Matter
 - Development of complex algorithms to extract potential Dark Matter signal in PICASSO data
 - Development of complex analysis variable tools for data treatment to mitigate against various background noises in PICASSO data

TEACHING EXPERIENCE

TEACHING ASSISTANSHIP

- Mathematics Grade 12 (CLE Algebra II), classroom sessions, Faith Alive Academy -Canada (*Sept. 2017 – December 2017*)
- Nuclear and Particle Physics (PHYS 891/ENPH 490), Marker, Queen's University– Canada (*Winter 2015*)
- Introduction to Experimentation (APSC 100), laboratory sessions, Queen's University– Canada (*Winter 2015*)
- Introductory Physics (PHYS 117), laboratory sessions, Queen's University– Canada (*Fall & Winter 2009, 2010, 2011, 2012, 2013*)
- General Laboratory (PHYS 350), Laboratory sessions, Queen's University– Canada (*Fall 2013*)
- Electromagnetic Theory (ENPH 431), marker, Queen's University– Canada (*Fall 2013*)
- Quantum Mechanics II (PHYS 345/ENPH 345), Marker, Queen's University– Canada (*Winter 2012*)
- Advanced Quantum Theory (PHYS 825), Marker, Queen's University– Canada (*Winter 2012*)
- Quantum Mechanics I (PHYS 344/ENPH 344), Marker, Queen's University– Canada (*Fall 2010*)

PRIVATE TUTORING

- Linear Algebra (MATH 111), Queen's University– Canada (*September 2010 – December 2016*)
- Differential and Integral Calculus (MATH 121), Queen's University– Canada (*September 2010 – December 2016*)
- Introductory Physics (PHYS 117), Queen's University– Canada (*September 2010 – December 2016*)
- Electricity and Magnetism (PHYS112), Queen's University– Canada (*September 2010 – December 2016*)
- General Physics (PHYS 106), Queen's University– Canada (*September 2010 – December 2016*)
- Fundamental Physics (PHYS 104) Queen's University– Canada (*September 2010 – December 2016*)
- Quantum Mechanics I (PHY344/ENPH344) Queen's University– Canada (*September 2010 – December 2016*)
- Quantum Mechanics II (PHY345/ENPH345) Queen's University– Canada (*September 2010 – December 2016*)
- Mathematics Grade 12, home tutoring– Cameroon (*September 2004 – August 2008*)

- Physics & Chemistry Grade 12, home tutoring– Cameroon (*September 2004 – August 2008*)
- Statistical Thermodynamics (PH306), University of Douala– Cameroon (*Oct. 2006 – Aug. 2008*)
- Quantum Mechanics I (PH307), University of Douala– Cameroon (*Oct. 2006 – Aug. 2008*)
- Mathematical techniques for Physics (MA107 & MA315), University of Douala– Cameroon (*October 2006– August 2008*)

PUBLICATIONS (Full list here: <https://scholar.google.com/citations?user=eDmL2SQAAAAJ&hl=en>)

- 1) **A. Kamaha**, P. Scovell, U. Utkut et al. (LZ Collaboration), “Description of and Results from the LUX-ZEPLIN Radio-Contaminant Control Program” *Eur. Phys. J. C* 80, 1044 (2020)
Corresponding author: A. Kamaha
- 2) M. Szydagis, C. Knight, C. Levy, **A. Kamaha**, Y. Huang, “The Snowball Chamber: Neutron-Induced Nucleation in Supercooled Water” *Phys. Rev. D* 103, 012002 (2021)
- 3) M. Szydagis, C. Knight, C. Levy, **A. Kamaha**, GM. Blockinger, GRC Rischbieter, N. Parveen “Investigating the XENON1T Low-Energy Electronic Recoil Excess Using NEST” *arXiv:2007.00528* (2020)
- 4) D.S. Akerib, CW Akerlof, [et al., including **A. Kamaha**] (LZ Collaboration), “The LUX-ZEPLIN (LZ) Experiment” *NIM A* 953: 163047 (2020)
- 5) D.S. Akerib, CW Akerlof, [et al., including **A. Kamaha**] (LZ Collaboration), “Simulations of Events for the LUX-ZEPLIN (LZ) Dark Matter Experiment” *arXiv: 2001.09363* (2020)
- 6) D.S. Akerib, CW Akerlof, [et al., including **A. Kamaha**] (LZ Collaboration), “Projected sensitivity of the LUX-ZEPLIN experiment to the $0 \nu \beta \beta$ decay of Xe 136” *Phys. Rev. C* 102, 014602 (2020)
- 7) D.S. Akerib, CW Akerlof, [et al., including **A. Kamaha**] (LZ Collaboration), “Simulations of Events for the LUX-ZEPLIN (LZ) Dark Matter Experiment” *arXiv:2001.09363* (2020)
- 8) D.S. Akerib, CW Akerlof, [et al., including **A. Kamaha**] (LZ Collaboration), “Projected sensitivity of the LUX-ZEPLIN experiment to the $0\nu\beta\beta$ decay of Xe-126” *arXiv:1912.04248*
- 9) Q .Arnaud, J.-P. Bard, A. Brossard, M. Chapellier, M. Clark, S. Crawford, E. C. Corcoran, A. Dastgheibi-Fard, K. Dering, P. Di Stefano, D. Durnford, G. Gerbier, I. Giomataris, G. Giroux, P. Gorel, M. Gros, P. Gros, O. Guillaudin, E. W. Hoppe, **A. Kamaha**, I. Katsioulas, D.G. Kelly, P. Knights, S. Langrock, P. Lautridou, R. D. Martin, J. McDonald, J.-F. Muraz, J.-P. Mols, K. Nikolopoulos, F. Piquemal, M.-C. Piro, D. Santos, G. Savvidis, I. Savvidis, F. Vazquez de Sola Fernandez, M. Vidal, M. Zampaolo, (NEWS-G Collaboration) “Precision laser-based measurements of the single electron response of SPCs for the NEWS-G light dark matter search experiment” *Phys. Rev. D* 99, 102003 (2019)
- 10) **A. Kamaha**, “Status and Prospect of NEWS-SNO Experiment.” *Proceedings of the 38th International Conference on High Energy Physics (ICHEP2016). 3-10 August 2016. Chicago, USA. Online at <http://pos.sissa.it/cgi-bin/reader/conf.cgi?confid=282>, id. 216. 2016*
- 11) Q .Arnaud, D. Asner, J.-P.Bard, A.Brossard, B. Cai, M. Chapellier, M. Clark, E.C. Corcoran, T. Dandl, A. Dastgheibi-Fard, K. Dering, P. Di Stefano, D. Durnford, G. Gerbier, I. Giomataris, P. Gorelg, M. Gros, O. Guillaudin, E.W. Hoppe, **A. Kamaha**, I. Katsioulas, D.G. Kelly, R.D. Martin, J. McDonald, J.-F. Muraz, J.-P. Mols, X.-F. Navick, T. Papaevange-lou, F. Piquemal, S. Roth, D. Santos, I. Savvidis, A. Ulrich, F. Vazquez de Sola Fernandez, M. Zampaolo (NEWS-G Collaboration) “First results from the NEWS-G direct dark matter search experiment at the LSM.” *Astroparticle Physics* 97 (2018): 54-62
- 12) S. Archambault, E. Behnke, M. Besnier, P. Bhattacharjee, X. Daie, M. Das, A. Davour, F. Debris, N. Dhungana, J. Farine, M. Fines-Neuschild, , S. Gagnebin, G. Giroux, E. Grace, C. M. Jackson, **A. Kamaha**, C. B. Krauss, S. Kumaratunga, M. Lafreniere, M. Laurin, I. Lawson, L. Lessard, I. Levine, C. Levy, D. Marlisov, J.-P. Martin, P. Mitra, A. Noble, M.-C. Piro,

- A. Plante, R. Podviyanuk, S.Pospisil, O. Scallon, S. Seth, N. Starinski, I. Stekl, U. Wichoski, T. Xie, V. Zacek (PICASSO Collaboration) “Final Results of the PICASSO Dark Matter Search Experiment.” *Astroparticle Physics* 90 (2017): 85-92
- 13) S. Archambault, E. Behnke, M. Besnier, P. Bhattacharjee, X. Daie, M. Das, A. Davour, F. Debris, N. Dhungana, J. Farine, M. Fines-Neuschild, S. Gagnebin, G. Giroux, E. Grace, C. M. Jackson, **A. Kamaha**, C. B. Krauss, S. Kumaratunga, M. Lafreniere, M. Laurin, I. Lawson, L. Lessard, I. Levine, C. Levy, D. Marlisov, J.-P. Martin, P. Mitra, A. Noble, M.-C. Piro, A. Plante, R. Podviyanuk, S.Pospisil, O. Scallon, S. Seth, N. Starinski, I. Stekl, U. Wichoski, T. Xie, V. Zacek (PICASSO Collaboration) “Searching for Dark Matter with PICASSO.” *Phys. Procedia* 61:107-111 (2015)
- 14) S. Archambault, E. Behnke, M. Besnier, P. Bhattacharjee, X. Daie, M. Das, A. Davour, F. Debris, N. Dhungana, J. Farine, M. Fines-Neuschild, S. Gagnebin, G. Giroux, E. Grace, C. M. Jackson, **A. Kamaha**, C. B. Krauss, S. Kumaratunga, M. Lafreniere, M. Laurin, I. Lawson, L. Lessard, I. Levine, C. Levy, D. Marlisov, J.-P. Martin, P. Mitra, A. Noble, M.-C. Piro, A. Plante, R. Podviyanuk, S.Pospisil, O. Scallon, S. Seth, N. Starinski, I. Stekl, U. Wichoski, T. Xie, V. Zacek (PICASSO Collaboration) “The PICASSO Dark Matter Physics Program at SNOLAB.” *ICRC* 33:896 (2013)
- 15) S. Archambault, F. Aubin, M. Auger, M. Beleshib, E. Behnke, J. Behnke, B. Beltrand, K. Clarke, X. Daie, A. Davour, F. Debris, J. Farine, M.-H. Genest, G. Giroux, R. Gorneaş, R. Faust, H. Hinnefeld, **A. Kamaha**, C.Krauss, M. Lafreniere, M. Laurin, I. Lawson, C. Leroy, C. Levy, L. Lessard, I. Levine, J.-P. Martin, S. Kumaratunga, R. MacDonald, P. Nadeau, A. Noble, M.-C. Piro, S. Pospisil, N. Starinski, I.Stekl, N. Vander Werf, U. Wichoski, V. Zacek (PICASSO Collaboration) “Constraint on low-mass WIMP interactions on 19F from PICASSO.” *Physics Letters B* 711.2 (2012): 153-161
- 16) S. Archambault, E. Behnke, M. Besnier, P. Bhattacharjee, X. Daie, M. Das, A. Davour, F. Debris, N. Dhungana, J. Farine, M. Fines-Neuschild, S. Gagnebin, G. Giroux, E. Grace, C. M. Jackson, **A. Kamaha**, C. B. Krauss, S. Kumaratunga, M. Lafreniere, M. Laurin, I. Lawson, L. Lessard, I. Levine, C. Levy, D. Marlisov, J.-P. Martin, P. Mitra, A. Noble, M.-C. Piro, A. Plante, R. Podviyanuk, S.Pospisil, O. Scallon, S. Seth, N. Starinski, I. Stekl, U. Wichoski, T. Xie, V. Zacek (PICASSO Collaboration) “Dark Matter Search with PICASSO” *Journal of Physics: Conference Serie* 375:1 (2012): 012023
- 17) S. Archambault, F. Aubin, M. Auger, M. Beleshib, E. Behnke, J. Behnke, B. Beltrand, K. Clarke, X. Daie, A. Davour, F. Debris, J. Farine, M.-H. Genest, G. Giroux, R. Gorneaş, R. Faust, H. Hinnefeld, **A. Kamaha**, C.Krauss, M. Lafreniere, M. Laurin, I. Lawson, C. Leroy, C. Levy, L. Lessard, I. Levine, J.-P. Martin, S. Kumaratunga, R. MacDonald, P. Nadeau, A. Noble, M.-C. Piro, S.Pospisil, N. Starinski, I. Stekl, N. Vander Werf, U. Wichoski, V. Zacek (PICASSO Collaboration) “News Insights into Particle Detection with Superheated Liquids.” *New Journal of Physics* 13.4 (2011): 043006
- 18) **A. Kamaha**. “3rd Interdisciplinary Meeting- Platform for the Dialogue between scientific Generations. 60th Meeting of Nobel Laureates at Lindau. Retrospects and Prospects 2010.” Foundation Lindau Nobel prize winners Meetings at Lake Constance: 35.

19) INVITED TALKS, CONFERENCE AND SEMINAR PRESENTATIONS

▪ Summer 2022	LRT2022 Conference	Sanford Underground Research Facility (SURF) & SDSMT
▪ Winter 2022	Colloquium	Pomona College
▪ Winter 2022	Colloquium	University of Chicago, KICP, USA
▪ Winter 2022	Invited Talk	Queen’s University (Astronomy on Tap event), Canada
▪ Winter 2022	AfAS2022 Conference	Cape Town, South Africa (remote due to COVID’19)
▪ Fall 2022	Colloquium	South Dakota School of Mines and Technology, USA
▪ Fall 2022	Colloquium	McMaster University, Canada
▪ Spring 2021	AfAS2021 Conference	Cape Town, South Africa (Virtual due to COVID’19)
▪ Spring 2020	Rising Stars Workshop	Princeton University, USA (Postponed due to COVID’19)
▪ Spring 2020	AfAS2020 Conference	Cape Town, South Africa (Postponed due to COVID’19)
▪ Fall 2019	Colloquium	University of Montreal, Canada
▪ Fall 2019	Colloquium	University of Massachusetts Amherst, USA

▪ Fall 2019	Colloquium	Smith College, USA
▪ Fall 2019	Colloquium	Mt Holyoke College, USA
▪ Fall 2019	TAUP Conference	University of Tokyo & University of Toyama, Japan
▪ Summer 2019	Science on TAP	Schenectady, USA
▪ Spring 2019	COSSURF Conference	South Dakota School of Mines and Technology, USA
▪ Spring 2019	PASCAL Conference	University at Albany SUNY, USA
▪ Winter 2018	Colloquium	Rensselaer Polytechnique Institute, USA
▪ Winter 2018	NSBP Conference	Columbus, USA
▪ Fall 2018	Colloquium	University at Albany SUNY, USA
▪ Summer 2017	Colloquium	University of Douala, Cameroon
▪ Summer 2017	Colloquium	University of Yaounde, Cameroon
▪ Fall 2016	Post-doc Research Showcase	Queen's University, Canada
▪ Summer 2016	ICHEP Conference	Chicago, USA
▪ Summer 2016	CAP Conference	University of Ottawa, Canada
▪ Spring 2014	PhD Seminar	Queen's University, Canada
▪ Summer 2013	CAP Conference	University of Montreal, Canada
▪ Spring 2013	PhD Seminar	Queen's University, Canada
▪ Winter 2012	WNPPC	Mt. Tremblant, Canada
▪ Spring 2012	PhD Seminar	Queen's University, Canada
▪ Summer 2011	CAP Conference	Memorial University, Canada
▪ Summer 2010	CAP Conference	University of Toronto, Canada

INSTITUTIONAL SERVICES AND AFFILIATIONS

SCIENTIFIC PAPER REVIEW

- Member of the LZ internal review committee for the article “Optical Calibration System for the LUX-ZEPLIN (LZ) Outer Detector” published in NIM A
- External Referee for XENON1T collaboration paper titled “Application and modeling of an online distillation method to reduce krypton and argon in XENON1T” to be published in Progress of Theoretical and Experimental Physics (PTEP) journal

PROFESSIONAL AFFILIATIONS

- Member of the American Physical Society (APS), <https://www.aps.org>
- Member of the Canadian Association of Physicists, <https://www.cap.ca>
- Member of the African Physical Society (APS), <https://www.africanphysicalsociety.org>
- Member of the USA National Society of Black Physicists, <https://www.nsbp.org>
- Member of the African Astronomical Society (AfAS), <https://www.africanastronomicalsociety.org/>

CONFERENCE ORGANISATION

- Member of the local organizing committee of the Canadian Association of Physicists at Queen's University in 2017
 - Poster Session Coordinator
 - Program/Web Local Information Coordinator
- Member of the organizing committee for the 2nd Africa Day event at Queen's University in 2015

COMMUNITY AND STEM RELATED SERVICES

- Co-convenor of the SNOWMASS'20 Underground Facilities (UF4) June 2020 –Present
- Panelist at the 2021 APS Conference for Undergraduate Women in Physics (CUWiP) 2021, Jan 22-Jan 24, 2021

- Chair of the LUX-ZEPLIN Diversity and Inclusion Committee, July – September 2020
- Member of the LUX-ZEPLIN Experiment Diversity and Inclusion (LZ E&I) Committee, September 2019 – Present
- Quarterly Chair of the LZ E&I Committee, Fall 2020
- Member of the African Astronomical Society (AfAS) Outreach Committee, May 2020 – Present
- Board Member of the International Committee of the USA National Society of Black Physicists, Nov. 2018 – Present
- Invited Panelist at the 2018 Conference of the National Society of Black Physicists, “What’s next? Navigating a Career in the Physical Sciences”, 2018 Conference of the National Society of Black Physicists, Columbus- USA, Nov. 07, 2018
- Judge for the Student oral presentations (Dr. Beth Brown Memorial Award Oral Presentation) at the 2018 Conference of the National Society of Black Physicists, Nov. 05-06, 2018
- Member of the International Selection Committee for the 5th biennial African School of Fundamental Physics and Applications 2018 (ASP2018) held in Namibia, Feb. – March 2018
- Mentor with the Women in Science and Engineering (WISE) program at Queen’s University, Kingston- Canada, Sept. 2015 – May 2017
- SNOLAB booth coordinator, Science Rendezvous Kingston Event, K-ROCK center, Kingston- Canada, May 13, 2017
- Speaker and Panelist at the Young Women’s Pathways and Leadership Conference, Peel District School Board, Mississauga- Canada, Feb.16, 2017
- Science Outreach Speaker for the International Conference on High Energy Physics (ICHEP) science outreach program, Chicago public library, Chicago- USA, Aug.08, 2016
- SNOLAB booth coordinator, Science Rendezvous Kingston Event, K-ROCK center, Kingston- Canada, May 07, 2016
- Member of the Curation Committee of the Lang Exhibition of African Art Project: ‘We have stories to tell: Africans and the Diaspora respond to the Lang Exhibition of African Art’, Agnes Etherington Art Center, Queen's University, Kingston- Canada, June 2015 – Feb. 2016
- Speaker and Panelist at the Women in Science and Engineering (WISE) Dinner with Industry event, Queen’s University, Kingston- Canada, Jan.27, 2016
- SNOLAB booth coordinator, Science Rendezvous Kingston Event, K-ROCK center, Kingston- Canada, May 09, 2015
- Volunteer Judge, Canadian Undergraduate Physics Conference (CUPC), Queen’s University, Kingston- Canada, Oct..23-26, 2014
- SNOLAB booth coordinator, Science Rendezvous Kingston Event, K-ROCK center, Kingston- Canada, May 03, 2014
- Member of the Academic Affairs Standing Committee, Queen’s University, Kingston- Canada, March 2012 – Jan. 2014
- Queen's SNOLAB group Journal Club Chair/Organizer, Queen’s University, Kingston- Canada, April 2012 - May 2013
- Volunteer Judge and physics demonstrator, Let's talk Science Event, Queen’s University, Kingston- Canada, May 04 2012

LANGUAGES

- English : Full working proficiency
- French : Native
- Fee Fee : Native
- Italian : Beginner
- Spanish : Beginner