African School of Physics Alumnus Diallo Boye Awarded the Goldhaber Fellowship

From the African School of Physics to excellence at Brookhaven National Laboratory.

Every year, the U.S. Department of Energy (DOE) at Brookhaven National Laboratory (BNL) awards, up to two recipients, the Goldhaber Distinguished Fellowship. This prestigious distinction is awarded to exceptional early-career scientists who have completed their PhD within the last three years at the time of application, work at the frontiers of their respective fields with a proven track record, and demonstrate a strong ability for performing independent research.

The Goldhaber Fellowship entails a three-year appointment with a starting annual salary of $100,400. The Fellowship is named after Maurice Goldhaber and his wife, Gertrude Scharff-Goldhaber, who have not only contributed in shaping BNL but also significantly impacted the field of nuclear physics as scientists. The program is designed to perpetuate a culture of scientific excellence at BNL and pave the way for the next generation of scientists at BNL. It predisposes the awardees to staff positions at BNL, upon successful completion of their appointment.
This year, Dr. Diallo Boye of Senegal is one of the happy recipients of the Goldhaber Distinguished Fellowship. Dr. Boye, a particle physicist employed as a postdoctoral researcher at BNL, is currently based at CERN (The European Organization for Nuclear Research) in Switzerland where he is conducting his research, utilizing the ATLAS experiment facility. His research focuses on Higgs decays into invisible particles and the exploration of dark sector states.

Boye’s journey into particle physics started upon completing his master’s degree in theoretical physics at the University of Cheikh Anta Diop in Dakar, Senegal. His curiosity was piqued and his passion for delving into the intricacies of matter through particle physics was ignited during the African School of Physics (ASP) held in Ghana in 2012. Subsequently, in 2013, he traveled to France to complete a master’s degree in subatomic physics astroparticle at the University of Strasbourg.

His stay in France provided the opportunity to strengthen his expertise in the field of particle physics through several research visits to prestigious institutions across Europe. Notable projects Boye contributed to include collaborating with the University of Manchester team on the alignment of LHCb-TimePix3-Telescope at CERN, completing a master’s degree in physics of energy and energy transition at the University Paul Sabatier in Toulouse, France, and participating in the measurement of the W boson mass in the electron channel using the Compact Muon Solenoid (CMS) detector at the Atomic Energy Commission (CEA) in Paris-Saclay.

Following these enriching experiences, Boye initiated his PhD studies on the search for a dark vector boson and a new scalar utilizing the ATLAS detector within the ATLAS experiment at CERN. In 2020, he successfully completed his PhD before joining the ATLAS group at BNL to conduct postdoctoral research. The move to BNL afforded Boye the opportunity to reconnect with his early mentor, Dr. Kétévi Assamagan. Dr. Assamagan, a particle physicist from Togo, serves as senior researcher at BNL and main promoter of the ASP, where they met for the first time in 2012.

For the past 15 years, Dr. Assamagan’s credo has been to encourage vocations, build capacities through the ASP, and, above all, provide young participants with exposure to opportunities. Hundreds of young Africans have seized these opportunities, enhancing the contribution of African physicists towards global scientific production. Dr. Boye’s success is the most recent illustration of this contribution, further reinforcing Dr. Assamagan’s conviction in the merits of these initiatives and his dedication to nurturing African youth:

“It has been a pleasure to work with Dr. Diallo Boye on the ATLAS Experiment, the African School of Physics, and the African Strategy for Fundamental and Applied Physics. In all these areas, Dr. Boye has shown rapid growth and maturity that have made him [rise] to the top among his peers. I hope our joint path is still long ahead to see him [become] more successful. For then I would savor some pleasure to have aided in the remarkable journey of his own making and of which I remain most proud.” - Kétévi Assamagan

Figure 2: Diallo Boye at CERN. (Photo Credit: Diallo Boye)