

1. About me: education and professional experience.

Aissa Wade is currently a Professor of Mathematics at Penn State University and the president of African Institute for Mathematical Sciences AIMS-Senegal. Prior to her appointment as president of AIMS-Senegal, she served as academic director at AIMS-Senegal.

Professor Wade received her Ph.D. from University Montpellier 2, France. She held a postdoctoral position at The Abdu Salam The *Abdus Salam* International Centre for Theoretical Physics (ICTP), Trieste, Italy. She also has held visiting positions at several institutions including: the University of North Carolina at Chapel Hill, USA; University Paul Sabatier in Toulouse, France; Mathematical Sciences Research Institute (MSRI) at Berkeley, USA; and the African University of Science and Technology in Abuja, Nigeria. She has published numerous research papers.

Hailing from Dakar, Senegal, Professor Wade is an ardent promoter of women and girls' participation in Science, Technology, Engineering, and Mathematics (STEM) education and a firm believer of inclusive. She is a keen advocate for Africa's socio-economic development. Together with the Senegalese Women in Mathematics Association (SWMA), she co-organized the event "filles et Sciences" in March 2016. As a member of African Women in Mathematics Association (AWMA), she co-organized

the first forum of the West African chapter of AWMA at AIMS-Senegal in July 2016.

2. About AIMS Centres.

The African Institute for Mathematical founded in 2003 in Cape Town, South Africa, is a pan-African network of centres of excellence for postgraduate education, research and outreach in mathematical sciences. Build on the success of its first centre, AIMS launched the Next Initiative Einstein Initiative in 2008 to build a critical mass of scientific talent. AIMS-Senegal opened in 2011 followed by centres in Ghana (2012), Cameroon, (2013), Tanzania (2014), and Rwanda (2016).

The activities in AIMS-Senegal consist mainly of:

- AIMS Academic Programme
- AIMS Research Programme
- AIMS public engagement
- AIMS Industrial Initiative

The core programme at any AIMS centers consists of three phases: the skills, review, and research phases. The skills and review phases are each divided into modular blocks, each block being three weeks in duration. The skills phase normally consists of three such blocks. All of the courses in the skills phase are compulsory because they are designed to ensure that all students are prepared and equipped with the tools required taking full advantage of the review courses that follow. The review phase consists of six three-week blocks and students must, with one exception, choose two courses from typically three

options in each block. Over an 18-week period, a student thus normally completes eleven review courses.

Following the completion of the skills and review phases, the students carry out an individual research project lasting 10 weeks. The research phase ends with the students presenting the findings of their research project in a written report as well as orally in front of an examination committee.

AIMS-Senegal is involved in the "Industrial Initiative". One of the goals of the "Industrial Initiative" is to facilitate transition and integration of AIMS students into the workforce through meaningful career opportunities. In this matter, AIMS-Senegal is one of the most advanced in the network AIMS although it opened its **Cooperative (Co-op) Education Programme** in 2015. This is an educational model that provides opportunities for students to gain hands-on work experience in big data or computer security prior to graduation (this is also known as **work integrated learning**). The Co-op programme has a duration of 18 months while the core programme is ten month long. Basically, the difference is that there is an additional work placement component of about seven months (see below)

The Germany Federal Ministry of Education and the Research (BMBF) through the Alexander Von Humboldt foundation and Deutscher Akademischer Austauschdienst (DAAD) have supported the research program at AIMS-Senegal since 2013. Dr.

Moustapha Fall has been nominated as Chair of

AIMS Program Cycle

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