



breaking

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## Summer school gives African students glimpse into lives in physics

This month, about 30 instructors and 50 students traveled from around Africa and the rest of the world to gather in Ghana for three and a half weeks of training in physics and computing.

By Kathryn Jepsen

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It's not every day a physics student ends up singing happy birthday to a classmate with a group of top scientists from around the globe.

But that was the atmosphere at the second annual African School of Fundamental Physics and its Applications, held in Kumasi, Ghana, this month. About 30 instructors and 50 students traveled from around Africa and the rest of the world to gather at Kwame Nkrumah University of Science and Technology for three and a half weeks of training in physics and computing. Twenty-three institutions from abroad, 11 African institutions and four government organizations provided support.

"It's an awesome feeling to get this close to such great scientists," said ASP2012 student and Ph.D. candidate Joseph Asare. "We would sit and chat with them at lunch. They are so down to earth."

The format of bringing together a mix of African and international instructors to teach students from around the continent is not new. Asare is from Ghana, but he attends the African University of Science and Technology, AUST, a pan-African graduate school in Abuja, Nigeria. Some of his professors are local, and others visit from countries outside of Africa such as England, Bulgaria, Japan and the United States.

What makes the biennial African School of Physics unique is that it gives students a survey of how they might build a variety of careers with their physics degrees by learning from instructors who have already done it. This year, students learned about applications

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of particle physics, analyzed data from the ATLAS experiment at the Large Hadron Collider and discussed building the technical infrastructure to do more science locally.

“The students wanted to do in-depth study,” said ASP2012 professor and Fermilab physicist Herman White. At one point, students who wanted a primer on the theory of quantum chromodynamics convinced a professor to hold an extra session outside the regular class schedule.

White said he saw the students who were accepted to the school as the future of the field, the ones who will build capacity to do more physics in their home countries. Asare said he hopes that’s the case.

Asare recently studied abroad at Princeton University as part of his post-master's degree research in the mechanical and aerospace department. He appreciated the availability of resources and equipment. But he lamented the brain-drain caused by the disparity in resources between schools in different countries.

“You have everything there,” he said. “If a person goes abroad to study, he faces the biggest challenge in choosing to either stay or come back home.”

He said he hopes that, in the future, African students and scientists will be able to participate in the particle physics community just as easily from home. He plans to make it a point to spend time teaching African students like himself.

“I think it is high time for Africans to be able to get the best education in Africa,” he said. To him, the African School of Physics seems like a great place to start.

View a video CERN produced about the school [here](#).

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