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The African Laser Centre: Transforming the Laser Community in Africa

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We describe the genesis and programs of the African Laser Centre (ALC), which is an African nonprofit network of laser users that is based in Pretoria, South Africa. Composed of over thirty laboratories from countries throughout the continent of Africa, the ALC has the mission of enhancing the application of lasers in research and education. Its programs include grants for research and training, equipment loans and donations, student scholarships, faculty grants for visits to collaborators' institutions, conferences, and technician training. A long-term goal of the ALC is to bring a synchrotron light source to Africa, most probably to South Africa. One highly popular program is the biennial conference series called the US-Africa Advanced Studies Institute, which is funded by the ALC in collaboration with the U.S. National Science Foundation and the International Center for Theoretical Physics in Trieste. The Institutes typically bring about thirty faculty and graduate students from the U.S. to venues in Africa in order to introduce U.S. and African graduate students to major breakthroughs in targeted areas that utilize lasers. In this presentation, we will summarize the ALC achievements to date and comment on the path forward.