

The joint virtual event of the African Light Source AfLS4-2022 and the African Physical Society AfPS2022



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## A Synchrotron as Accelerator of Science Development in Central America and the Caribbean

Monday, 14 November 2022 16:45 (30 minutes)

We want to identify possible ambitious projects that, through a strong regional collaboration, may accelerate the process of filling the scientific gap between Central America and the Caribbean (CAC) and the rest of Latin America.

We analyze the actual mechanisms used in the past for the above purpose, in order to identify the bottlenecks at the origin of the problem, and analyze possible experiences in other regions that have fulfilled analogous results.

The main bottlenecks are the scarcity of public research centers and little or no research in private universities. This requires that the "Central American Science and Technology Fund" proposed by the government of Guatemala, and pending of a decision by the Summit of Central American Heads of State be approved, and focus on objectives capable of attracting the attention of the non-academic sector, first and foremost policy makers, but also civil society in general. This requires ambitious projects, and the successful experience of SESAME ("Synchrotron Light for Experimental Science and Applications in Middle East ") offers an interesting basis for reflection, as it allows scientific research and short-term practical and social applications. Such an objective may attract the attention of the non-academic sector, first and foremost policy makers, but also civil society in general. The understanding of the value of the initiative by these sectors is crucial to create the conditions for the necessary financing by the governments of the region, possibly in collaboration with the regional and international development banks. The foreseen outputs will be both of academic and social impact. Beside the direct use of the synchrotron, one can expect advantages for doctoral training and the prevention of brain drain. More generally, as David Gross uses to remind: Science drives Technology, Technology drives Innovation, and this eventually leads to the upgrade of the welfare.

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