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An Upgrade for the Brazilian Synchrotron Light Source: Are you Sirius?

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The application of synchrotron radiation in a great variety of fields in general, and condensed matter in particular, has increased steadily worldwide. This, to a large extent, is a result of the availability of the much brighter third-generation light sources, which opened up new experimental techniques. Recently, new developments in accelerator technology are paving the way for even brighter sources, which are being named fourth-generation light sources. Sirius, the future new Brazilian synchrotron, is one of the first two such machines being currently constructed in the world. Its first light is expected by 2018. It is being planned to be a state of the art machine, providing tools for cutting edge research that are non existent today in Brazil. It is a project designed and executed by the Laboratório Nacional de Luz Síncrotron – LNLS, which was also responsible for the construction of the current second generation Brazilian light source, the first synchrotron in the southern hemisphere, still the only one in Latin America. In this talk an overview of the status of Sirius will be provided.