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LATTES: a next generation gamma-ray detector concept

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The detection of Very High Energy gamma-rays to study astrophysical sources relies on the measurement of Extensive Air Showers (EAS) either using Cherenkov detectors or EAS arrays. While the former technique presents a better energy and angular resolution, and has a lower energy threshold, the latter gains significantly in duty cycle and survey area. We present, in this talk, the Large Array Telescope for Tracking Energetic Sources (LATTES), a novel concept for a hybrid EAS array detector, with an improved sensitivity at lower energies (~ 100 GeV). A description of its main features and capabilities, as well as the preliminary results on its expected performance, and sensitivity, will be discussed. Such a wide field of view experiment, which is planned to be installed at high altitude in South America, would be a complementary project to the planned Cherenkov Telescope Array. Its characteristics makes it a powerful tool to trigger observations of variable sources and to detect transient phenomena.

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