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## The scintillating bar detector of the ASACUSA experiment

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Detecting charged pions emitted from antiproton annihilation on nuclei is a well-established technique utilized to determine annihilation vertex positions, crucial also for several experiments in the antimatter field. For the past decade, a detector composed of plastic scintillating bars has been integral to the ASACUSA experiment, employed in both antihydrogen formation experiments and annihilation cross-section measurements. This work delineates its design and operations, encompassing a significant upgrade of the light readout system and front-end electronics implemented two years ago. Additionally, it validates the tests with cosmic rays and the improvements towards a better integration into the overall control system.

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