

Abstract Submitted  
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**Ultra-high energy photon studies with the Pierre Auger Observatory** VIVIANA SCHERINI, Louisiana State University, PIERRE AUGER COLLABORATION — While the most likely candidates for cosmic rays above  $10^{18}$  eV are protons and nuclei, many of the scenarios of cosmic ray origin also predict a photon component. Detection of this component is of importance for cosmic ray physics but also opens a new research window with impact on astrophysics, cosmology, particle and possibly fundamental physics. The Pierre Auger Observatory has been used for photon searches of unprecedented sensitivity. The current status of this search will be reported, including experimental limits at EeV energies.

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