# Follow-up Search for UHE Photons from Gravitational Wave Sources with the Pierre Auger Observatory

Executive Summary

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- **First constraints on UHE photons from GW sources** are presented here by the Pierre Auger Collaboration.
- Upper limits on the photon fluence from the **binary neutron star merger GW170817** extend the electromagnetic follow-up campaign to the ultra-high energy regime.
- With the surface detector of the Pierre Auger Observatory, a detection of a possible UHE photon **signal beyond the $5\sigma$ level is possible**.
- A dedicated **event selection strategy** of air-shower events and gravitational wave sources allows for a strong background suppression while keeping a window open for discoveries.