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Detection of ultra-high-energy particles with the new Radio Detector of the Pierre Auger Observatory

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The new Radio Detector (RD) is part of the ongoing AugerPrime upgrade of the Pierre Auger Observatory. It consists of short aperiodic loaded loop antennas designed to measure radio signals from extensive air showers in the 30-80 MHz band. These antennas, with polarisations both parallel and perpendicular to the earth magnetic field, are currently being installed on each of the 1,660 surface detector stations. Several hundred of them are already taking data and the array is expected to be completed in 2024. The RD will be sensitive to the electromagnetic component of inclined showers with zenith angles above 65 degrees. This will increase the sky coverage of mass-sensitive measurements and the sensitivity of the Observatory to neutral particles such as ultra-high-energy photons and neutrinos. In this contribution we report on the current status and future prospects of the RD.

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