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XENONnT direct dark matter searches: the latest results

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The XENONnT experiment, located deep-underground in Laboratori Nazionali del Gran Sasso (Italy), is operating since 2020 with the aim of detecting dark matter direct interaction signals.
By exploiting a 5.9 t liquid Xenon target equipped with a Time Projection Chamber, as well as a combination of active veto systems and advanced purification techniques, the XENONnT experiment has reached an unprecedented level of electronic-recoil background, amounting to approximately 16 events per keV-tonne-year. Thanks to this outstanding achievement, with the first data taking campaign of about 100 days, the Collaboration has reported new results for several dark matter candidates, including WIMPs.
This talk will focus on both the XENONnT experiment techniques and its latest results.

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