

**RESEARCH****XENON1T ANNOUNCES ITS NEW RESULTS**

The XENON1T experiment, for direct research of dark matter at the INFN National Laboratories of Gran Sasso, announced its latest results on 28 May. The data observed by the experiment agree with the forecasts of the small expected background, in other words, those events similar to an interaction of WIMPs, the candidate class of particles of dark matter that XENON1T is looking for, but caused by particles of a known nature. This result therefore means that new, stricter limits can be applied to WIMPs for possible interactions with ordinary matter. The result is based on a quantity of data equal to 1 tonne per annum, an exposure that has never previously been achieved: XENON1T has therefore achieved sensitivity of around four size levels better than that obtained with XENON10, the XENON project's first detector, in operation at the Laboratories of Gran Sasso since 2005. By increasing the target mass from the original 5 kg to the current 1300 kg, while at the same time reducing the background by a factor of 5000, the XENON joint operation has confirmed its status at the frontier of the direct search for dark matter. ■