



EXPERIMENTS

GRAVITATIONAL WAVES: VIRGO AND LIGO WILL BE SWITCHED ON AGAIN IN SPRING

The Advanced Virgo gravitational wave detector and the Advanced LIGO twin experiments will start taking data again this spring, if everything goes as planned in April, when the third observation campaign, in jargon O3, will begin. In particular, for Advanced Virgo, the challenge is to improve further in terms of both observation time and sensitivity.

Before the start of the new observation campaign, Advanced Virgo and Advanced LIGO have planned a series of test data acquisition periods. The last one in 2018, called ER13 (Engineering Run 13th), included a complete test of the warning system that will alert the community of physicists and astronomers whenever a potential gravitational wave candidate is observed. The last test data acquisition period, ER14, is scheduled for March 2019. ER14 will last for approximately four weeks and the plan foresees that, on its conclusion, the start of the new observation campaign will follow.

The expectation of the researchers of the LIGO-VIRGO international collaboration is for a greater number of events in O3, thanks to the progress in the sensitivity of the three interferometers. Also the pointing capability will be better than in the past and will allow astronomers to detect any other cosmic messengers emitted from gravitational wave sources more quickly. ■