



## RESEARCH

### **FIRST COLLISIONS AT THE SUPERKEKB ACCELERATOR: BELLE II ADVENTURE STARTS**

On April 25, at the KEK laboratory, in Tsukuba, Japan, electrons and antielectrons collided for the first time in the SuperKEKB accelerator. The events were observed by the Belle II detector, designed and built also thanks to INFN. SuperKEKB, the world's highest luminosity accelerator, came hence into operation. The first electron beam circulated in the accelerator on March 21, followed, 10 days later, by the first positron (antielectron) beam. At that time, the commissioning phase, consisting in the tuning of the accelerator, started, and its success led to first collisions. SuperKEKB, along with the Belle II detector, is a facility designed to search for New Physics beyond the Standard Model by measuring rare decays of elementary particles such as beauty quarks, charm quarks, and tau leptons. Belle II will tackle the problem of finding evidence of the existence of new particles, a new possible reason why matter is dominant compared with antimatter and answer other open fundamental questions in understanding the universe. ■