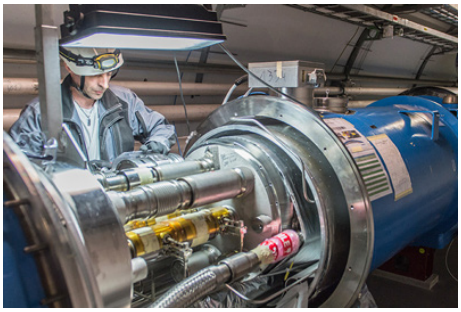

RESEARCH
LHC, LAST CHECK BEFORE THE RESTART

After a two-year break, the LHC, the super particle accelerator of CERN in Geneva, is giving end to the last check before launching its second period of activity, the Run 2, thus restarting its research. Even more powerful, it will achieve energy levels hitherto never explored by physicists in the laboratory. The machine was switched off on 14 February, 2013 to enable work to be carried out that has led to its increase in performance. With a slight delay due to a technical accident occurred in a connection between a magnet and its diode, Run 2 is about to begin. Thus, shortly, the first proton beams will be injected into the 27-kilometre ring of the particle accelerator, while the first particle collisions are expected in the next months.
In the enhanced version, the LHC will operate with almost double the energy of its predecessor, reaching 13 TeV at the point of particle collision. This will allow physicists to look for signs of physics beyond the Standard Model, the theory that today represents our best description of nature, of elementary particles and their interactions. It will also be an opportunity to verify theories that in the first stage were impossible to test, from dark matter, to super-symmetry and extra dimensions. ■

NOMINATION
FROM GERMANY TO ITALY TO GUIDE THE TIFPA INSTITUTE IN TRENTO

Marco Durante, researcher of the highest international profile, has been appointed as the new director of the TIFPA institute in Trento (*Trento Institute for Fundamental Physics and Application*) the INFN National Centre established in January 2013 in collaboration with the *University of Trento*, the *Bruno Kessler Foundation* and the *Health Services Agency* of the Province of Trento. Professor at the *Technische Universitaet Darmstadt*, Marco Durante is also adjunct professor at the *University Federico II* in Naples, at the *Temple University* in Philadelphia (USA) and at he *Gunma College of Medicine* in Japan. Since the year 2007, he is Director of the Department of Biophysics at the GSI Helmholtz Center in Darmstadt, Germany. Marco Durante is recognized by the world scientific community as a leader in the field of radiobiology of charged particles, radiation protection in space and medical physics in the context of cancer therapy with ions, with over 250 publications in the field and a European patent.
With the new appointment, Marco Durante brings to Italy an exceptionally valuable international experience. He worked in the United States at the *Lawrence National Laboratory*, at the NASA *Johnson Space Center*, at the *Brookhaven National Laboratory*, and at the *National Institute of Radiological Sciences* in Japan, being coordinator of international research projects and receiving numerous awards for his innovative research. He is currently president of the *International Association for Radiation Research* (IARR). ■