

2017

52nd Rencontres de Moriond

La Thuile / Aosta Valley / Italy

March 18th - 25th

Electroweak Interactions and Unified Theories

Study and properties of the Higgs Boson. Searches for beyond the Standard Model physics. Supersymmetry, search for rare and forbidden processes, extradimensions. Flavour physics and CP violation (in the hadronic and leptonic sectors). **Open questions in neutrino physics.** Astroparticle physics (Neutrino astronomy). **Searches for axions, dark matter searches and dark energy candidates.** Cosmological implications. Precision tests.

Very High Energy Phenomena in the Universe

High energy Gamma Ray Astronomy. **Gamma Ray Bursts.** Compact objects. Ultra High Energy Cosmic Rays. **Origin and Propagation of Cosmic Rays.** High Energy Neutrino Astronomy. Dark Matter, direct and indirect searches.

March 25th - April 1st

QCD and High Energy Interactions

Production and properties of the Higgs boson. **Searches for new physics.** Phenomenology of physics beyond the Standard Model. Properties of the Top quark. **Production and decay of b and c quarks.** High PT QCD physics. Recent developments in QCD. New theoretical developments in particle physics. Small x, saturation, forward and spin physics. **Heavy Ion collisions.**

Gravitation

Observation of gravitational waves. Search for transient, bursts, continuous, stochastic events. **Astrophysical and cosmological sources of Gravitational Waves.** Space borne detectors. Atomic gravitational wave detector. Pulsar timing. **First MICROSCOPE results.** Tests of the equivalence principle (classical and with cold atoms). Astrometry and observational gravity tests. **Astrometry in the Gaia sky.** **Tests of GR and alternative theories.** Tests of gravity at all scales.

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