The Large Hadron Collider (LHC) restarted in summer 2015 after a two-year shutdown, reaching the new energy frontier of 13 TeV in search of new physics beyond the standard model. The Compact Muon Solenoid (CMS) is a large multipurpose experiment at the LHC investigating many phenomena of physics, such as dark matter, and performing precision measurements of properties of the Higgs boson and other particles.

Helsinki Institute of Physics (HIP) is engaged in the analysis of CMS data for Higgs boson properties and heavy Higgs searches, jet physics and B physics. We also have leading roles in tracker alignment, jet energy calibrations and CMS OpenData, and we operate a Tier-2 computing center at the Kumpula campus.

We present recent results from the CMS collaboration: measurement of the Higgs boson properties [1], observation of rare dimuon decays of Bs meson from the combined analysis of CMS and LHCb data [2], and search of heavy resonances in the dijet mass spectrum at 13 TeV [3]. As a recent highlight, we also discuss the hints of a new particle at 750 GeV (Fig. 1). Last, we invite everybody to participate in the analysis of CMS OpenData [4].

Figure 1: A di-photon system with the mass of 750 GeV. © 2015 CERN