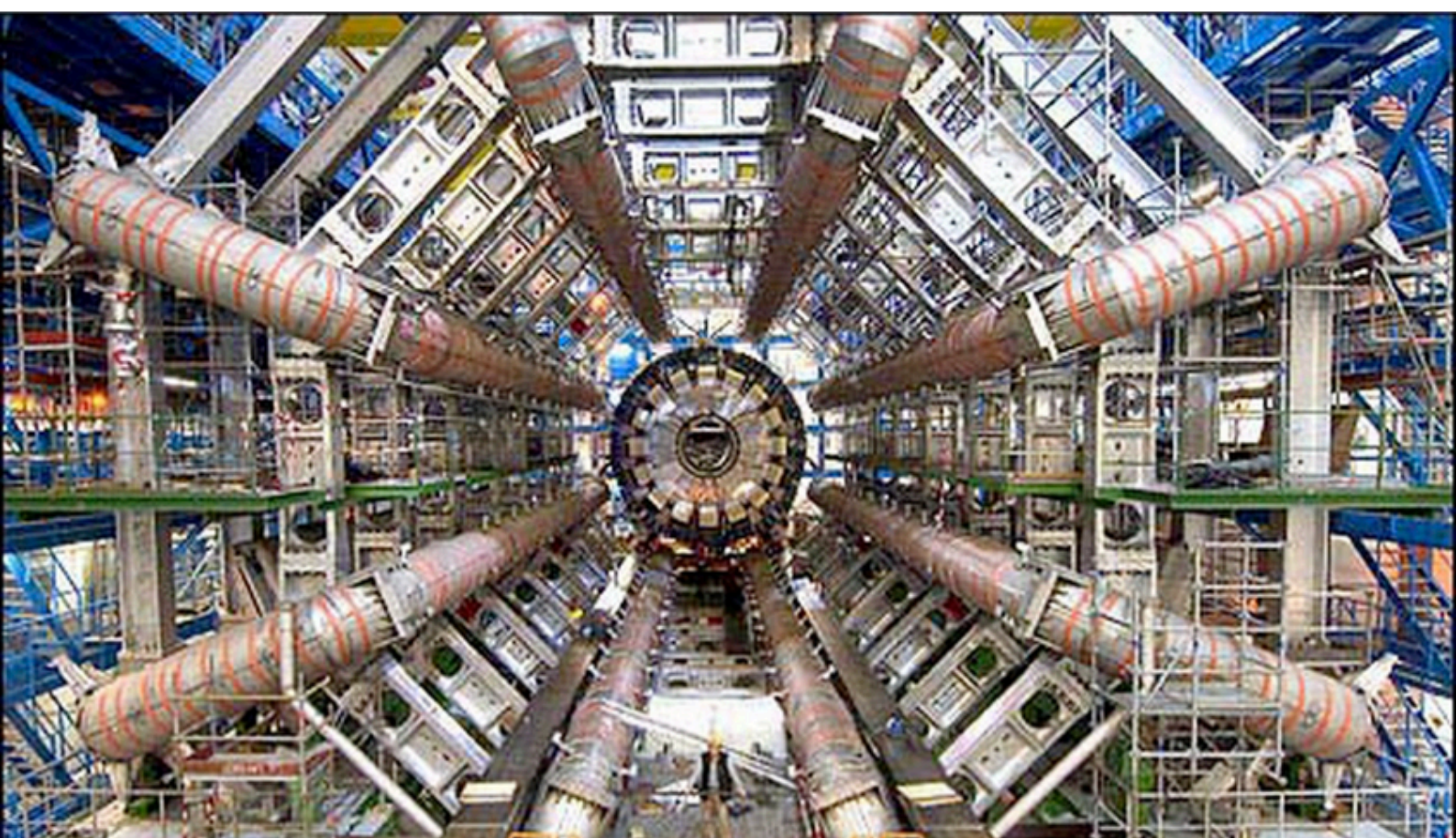




APC colloquium
Friday January 21
11am (on zoom)



(Almost) 10 years of Higgs boson: from the discovery to the precision



Giovanni Marchiori (APC)

The Higgs field and the associated scalar boson are the cornerstone of the Standard Model (SM) of particle physics. The Higgs field might also be the portal between the SM and the dark matter sector, and have cosmological implications. After the first tantalising hints of its existence in December 2011, the discovery of the Higgs boson was officially announced by the ATLAS and CMS Collaborations at CERN on July 4th 2012.

In my talk I will review the role played by the Higgs boson in the SM, how it is produced and observed at the LHC, its discovery and its latest property measurements with the full dataset collected so far by the ATLAS experiment.