



# CERN Colloquium

SPEAKER: Prof. Francois Englert (Physics Nobel Prize 2013  
- Université Libre de Bruxelles)

TITLE: **The BEH mechanism and its scalar bosons**

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## ABSTRACT

In the beginning of the 1960's, the long range interactions within our universe were well understood from the laws of classical general relativity, Einstein's generalisation of Newtonian gravity, and of quantum electrodynamics, the quantum version of Maxwell's electromagnetic theory. But there was no hints of how to formulate consistent fundamental theories of short range interactions.

A solution to this problem was proposed by Robert Brout and me, and independently by Peter Higgs. I shall explain our motivations for constructing this BEH mechanism and discuss its content. I will comment on how the magnificent ATLAS and CMS discovery at CERN of the scalar boson predicted by the mechanism confirms its validity and may have implications on structures at yet unexplored energies.