Professor Peter Higgs awarded The Nobel Prize in Physics 2013

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Professor Peter Higgs Emeritus Professor of Theoretical Physics at the University of Edinburgh has been awarded The Nobel Prize in Physics 2013 jointly with Francois Englert, a Professor from Belgium.

According to Twitter Professor Higgs is off on holiday...

Why I love Peter <u>#Higgs</u>: "you might like to know that Peter Higgs is off on holiday without a phone," an Ed'burgh physicist tells me. <u>#Nobel</u>

- Ian Sample (@iansample) October 8, 2013

The University of Edinburgh website quotes him as follows:-"I am overwhelmed to receive this award and thank the Royal Swedish Academy. I would also like to congratulate all those who have contributed to the discovery of this new particle and to thank my family, friends and colleagues for their support. I hope this recognition of fundamental science will help raise awareness of the value of blue-sky research."

Professor Timothy O'Shea the Principal of University of Edinburgh said:-"We are delighted at the news of this Nobel Prize award and congratulate Professor Peter Higgs on his achievement. The discovery of the Higgs particle will underpin the next generation of physics research, and this accolade is worthy recognition of its significance. Professor Higgs' work will continue to inspire scientists at Edinburgh and beyond." The joint award is made in recognition of the 'theoretical discovery of a mechanism that contributes to our understanding of the origin of mass of subatomic particles, and which recently was confirmed through the discovery of the predicted fundamental particle, by the ATLAS and CMS experiments at CERN's Large Hadron Collider."

In 1964 they worked separately on the same theory which they each proposed independently. Englert worked along with Robert Brout who has since died.

Their theory is a central part of the Standard Model of particle physics that describes how the world is constructed. According to the Standard Model everything from flowers and people to stars and planets consists of just a few building blocks: matter particles. These particles are governed by forced mediated by force particles that make sure everything works as it should.

The entire Standard Model also rests on the existence of a special kind of particle: the Higgs particle. This particle originates from an invisible field that fills up all space. Even when the universe seems empty this field is there. Without it we would not exist because it is from contact with the field that particles acquire mass. The theory proposed by Englert and Higgs describes this process.

Professor Higgs was presented with the Edinburgh Award in 2011 by The City of Edinburgh Council in recognition of his achievements.

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Council Leader Andrew Burns added his voice to the many congratulations this morning:-

Great news re- Peter Higgs & the Nobel Prize in Physics ... met him briefly when he received the 2011 Edinburgh Award: a very gracious man. - Cllr. Andrew D Burns (@AndrewDBurns) <u>October 8, 2013</u>

The Nobel Prize is worth 8 million SEK which converts to around £750,000 which Professor Higgs will share with Professor Englert.