

LIBERTY PARK INN®

A Syndicated Column

Name: Higgs Boson Discovery

By: David Henry © 2012

“Hey Edwin,” I exclaimed! “What do you think about the Higgs Boson discovery?”

“I’m so excited I could dance around the hotel lobby, David,” he replied.

“Well you better be careful, old man,” I said with a chuckle. “You might hurt yourself.”

“Oh yeah?” he came back, “You better just be careful yourself. You aren’t that far behind me.”

Edwin and I share a passion for science. Edwin is a retired physics professor from an Ivy League college and he did research on a government grant years ago in the area of string theory, so we always have stimulating discussions about the latest scientific discoveries. His wife has family here in town so they stay at our hotel when they come to visit.

Just then John interrupted, “Ok, that’s enough. Break it up you two.” He handed the registration card to Edwin and said, “The two of you sound more like a couple of giggly school kids than two old men just short of the grave.”

“I guess we are pretty excited,” I replied.

“But our excitement is understandable,” Edwin added. “This is one of the most important scientific discoveries in our lifetime.”

“What’s so important about this Higgs Boson anyway,” John asked?

“Well,” Edwin replied, “there are different realms of knowledge that scientists can study. There are the obvious areas of the earth and the sky that we have always been able to see even without any special scientific equipment. But the things that are very large or very small require special equipment to see and study.”

“For example,” I interjected, “when we want to study deep space, we need a powerful telescope, like the Hubble.”

“Yes,” Edwin agreed. “But then we also cannot see the realms that are too small to see with the naked eye. The

things we see with our naked eyes are made up of tiny molecules and atoms. Even though we can’t see them with our eyes, many of them can be seen with powerful microscopes like scanning-tunneling microscopes and atomic force microscopes.”

“When I was still a kid in school,” I added, “atoms and molecules were all they talked about in my science classes.”

Edwin continued, “But the atoms are made up of even smaller particles called quantum particles and the quantum particles are made up of indescribably tiny strings.

“This realm of the quantum particles is a very strange realm indeed. It includes some things that you are probably familiar with or at least have heard about, but the behavior of these particles is unlike anything you are familiar with,” Edwin explained.

“Yes,” I added. “These particles do odd things. They are so inconsistent in their behavior that scientists have named this the ‘uncertainty principle.’ It’s almost like these quantum particles are alive and have free will.”

Edwin continued, “Even the most powerful microscopes cannot see the realm of the quantum particles. These particles are just too small. We learn about them by what is commonly called atom smashers.”

“Oh,” John replied. “I’ve heard about them. Over in Switzerland they just recently built a huge new one.”

“That’s exactly what we’re talking about,” I replied. “The CERN Particle Accelerator.”

“I don’t really pay much attention to science, David, but I do know that fairly often you get into discussions with our guests about that subject,” John commented.

“It’s a lifelong habit, John,” I replied. “When I was still in Junior High School I was already fascinated by anything scientific. I remember reading a book on Einstein’s theory of relativity back then and it made sense to me. It didn’t occur to me until years later that most Junior High students don’t do that. My love for science has never stopped. And there is so much to

learn that I try to drink up every bit of knowledge I can get. Working in hotels has put me in contact with a stream of people who work in this field. So it’s natural for me to ask questions and learn everything I can.”

Edwin continued, “Scientists who study the quantum particles have made some absolutely amazing discoveries over the years, but one piece of the puzzle has always eluded them. That is the Higgs Boson.”

“Hmm,” John said thoughtfully.

“Scientists have been actively searching for this particle for about 40 years,” Edwin explained.

“Really,” John asked?

“Yes,” Edwin replied. “We have theorized for many years about this particle. What we know about quantum physics implies that this Higgs Boson should exist, but we just never could get any evidence to prove the existence of this particle until now.”

“Wow,” John replied. “I had no idea this was happening.”

“Most people don’t,” Edwin replied. “The announcement of this discovery wasn’t noticed by most people, but for those of us who study these things, this is an absolutely amazing discovery.”

I agreed, shaking my head enthusiastically.

John agreed too and said, “That is interesting.”

Then John handed Edwin the key to his room and said, “Here’s your key, Edwin. Enjoy your stay with us.”

Edwin smiled and replied, “I always do, John.”

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The author really is very interested in science and has had many discussions on the subject with guests in hotels where he has worked. He is an amateur astronomer and string theorist.

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