



-The Higgs Hunter's Guide-

a ~~basic~~ introduction to the discovery of a
fundamental particle

Classroom Connect 2016

Frank Geurts (Rice University)

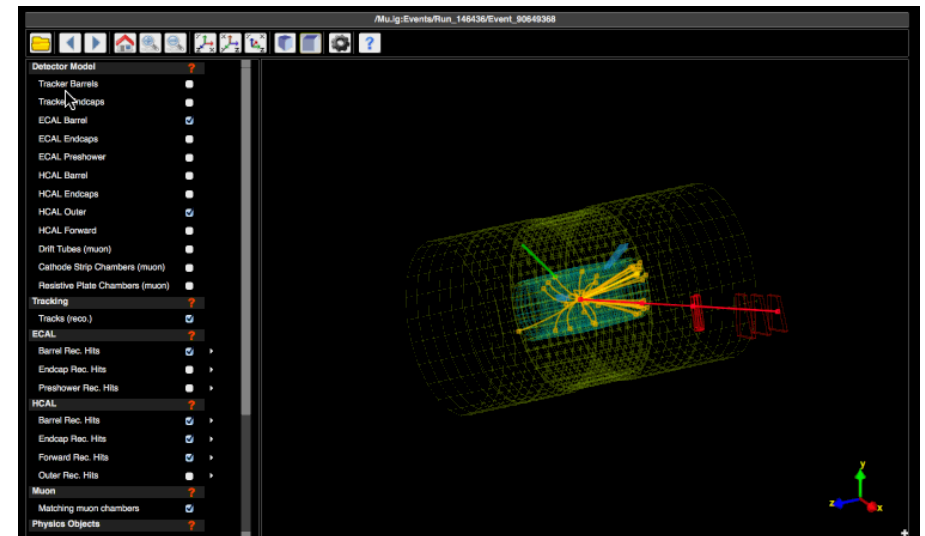
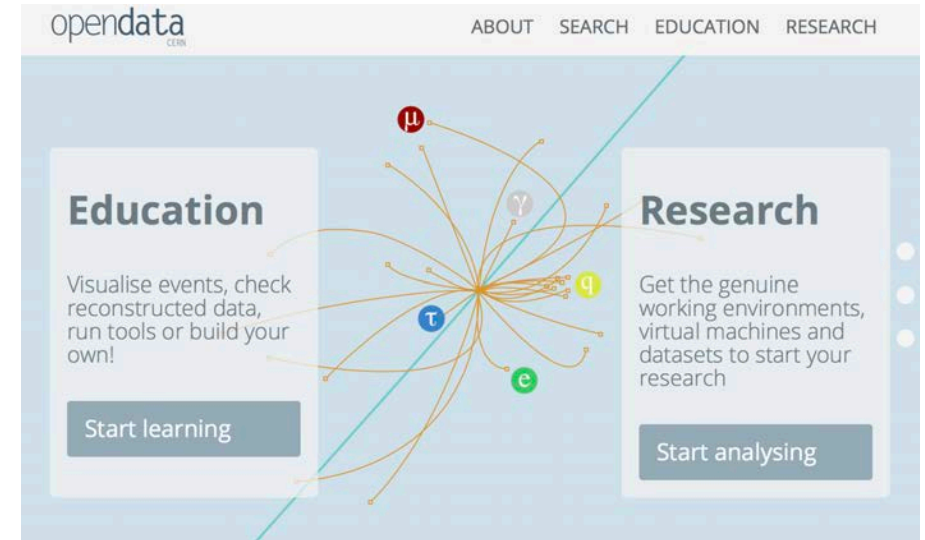


Let's Look at Some of these “Higgs Events”

- Where to go?
 - CERN Open Data Portal :: Education & Research
 - <http://opendata.cern.ch>
 - “start learning” & “start analysing”

➤ Here's what we'll do today

- Look at a few events (collisions) in which we see the typical “smoking gun” of a Higgs
- <http://www.i2u2.org/elab/cms/event-display/>



Good Reads

Basic Level

- Understanding the Universe – Don Lincoln (Rice alumnus!)
- Facts and Mysteries in Elementary Particle Physics – Martinus Veltman (Nobel '99)
- The Infinity Puzzle – Frank Close (recommended read for the Nobel Committee according to Economist)

Online Resources

- <http://www.quantumdiaries.org> -- great blogs (e.g. Flip Tanedo, but many more)
- <http://www.phdcomics.com/higgs/> -- very nice explanations. Check out an interview at CERN with Daniel Whiteson (Rice alumnus!)

More complicated (senior undergraduate level) but very nicely written

- Introduction to Elementary Particles -- Griffiths

Fun reads (anecdotal history of physics)

- From Quanta to Quarks – Anton Capri