

# Lectures on the Standard Model (Extra Plots)

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### **Cross Section for** $e^+e^- \rightarrow \text{hadrons}$



[LEP + SLC/D hep-ex/0509008]



#### **ATLAS Production Cross Sections**

#### Standard Model Total Production Cross Section Measurements Status: July 2018



[ATLAS Collaboration]



# **Higgs Production Cross Sections**





# **Higgs Decay Branching Ratios**



# Higgs Couplings



## **Cross Section for** $e^+e^- \rightarrow \text{hadrons}$

5



 $R(s) = \frac{\sigma(e^+e^- \to \text{hadrons})}{\sigma(e^+e^- \to \mu^+\mu^-)}$ 

[PDG]

# **Parton Showering and Hadronization**



[Eric M. Metodiev]

# **Parton Showering and Hadronization**



Run: 280673 Event: 1273922482 2015-09-29 15:32:53 CEST

