

# 8.701

Introduction to Nuclear  
and Particle Physics

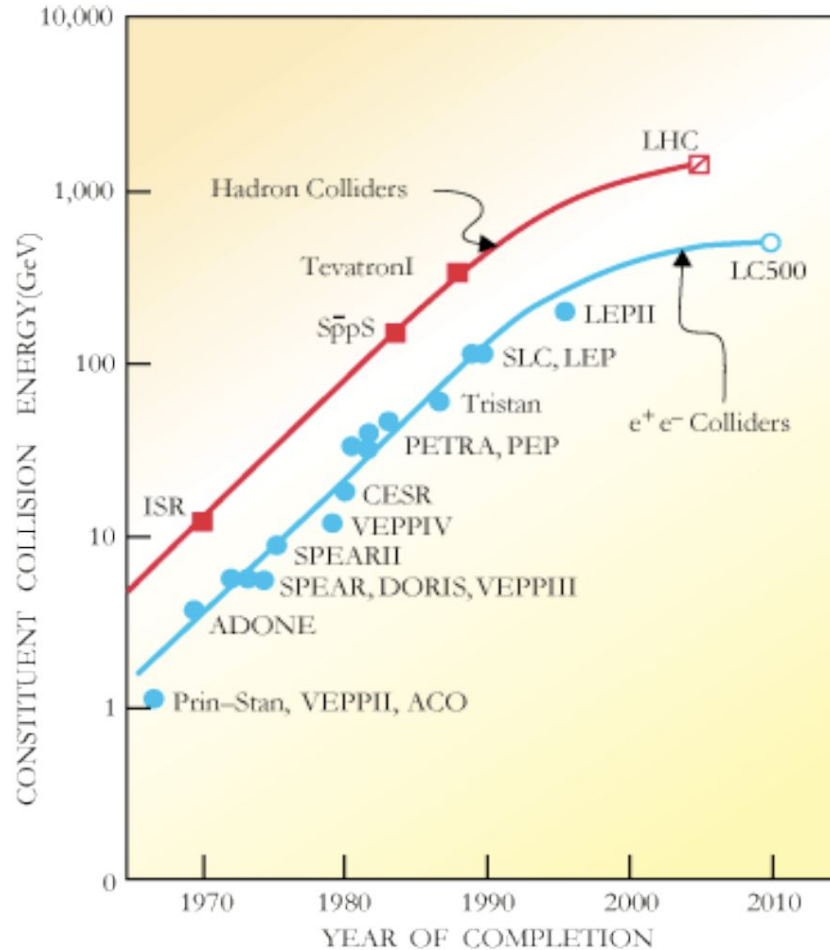
Markus Klute - MIT

5. QCD

5.6 Hadron Colliders

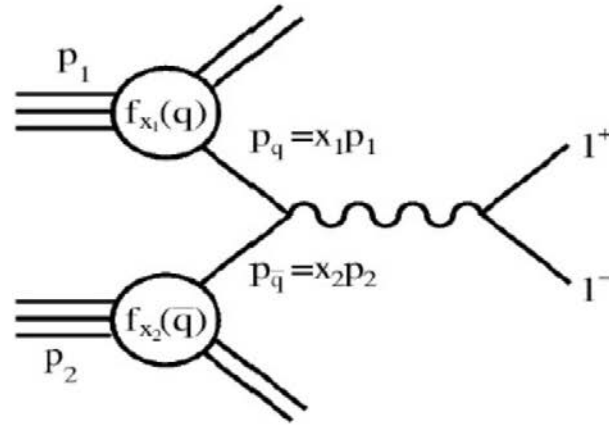


# Historic View



© Source unknown. All rights reserved.  
This content is excluded from our Creative Commons license. For more information, see <https://ocw.mit.edu/fairuse>.

# Cross Section Factorization



$$\frac{d\sigma}{dQ^2} = \sum_{q, \bar{q}} \int dx_1 \int dx_2 \{ q(x_1) \bar{q}(x_2) + \bar{q}(x_1) q(x_2) \} \hat{\sigma}_0 \delta(Q^2 - \hat{s})$$

Hadronic  
cross section

Parton distribution  
functions

Partonic cross  
section

MIT OpenCourseWare  
<https://ocw.mit.edu>

8.701 Introduction to Nuclear and Particle Physics  
Fall 2020

For information about citing these materials or our Terms of Use, visit: <https://ocw.mit.edu/terms>.