NLO QCD Corrections to Scattering Processes Using θ -Parameters in the NSC Subtraction Scheme

Bachelor's Degree in Physics

Student: Lucrezia Bioni (13655A)

Supervisor: Prof. Raoul Horst Röntsch

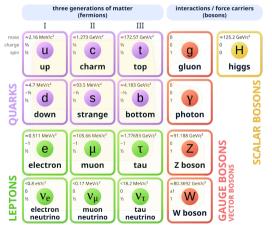
24 October 2025





The Standard Model of Particle Physics

Standard Model of Elementary Particles



Main BSM evidence

- dark matter and dark energy
- matter-antimatter asymmetry
- neutrino masses

Figure from Clowe et al. 2006.

Offset between the observed baryonic mass distribution and the gravitational potential in the Bullet Cluster (1E O657-56).



Collider Physics

One of the principal methods of research