Find Your Own Odderon!

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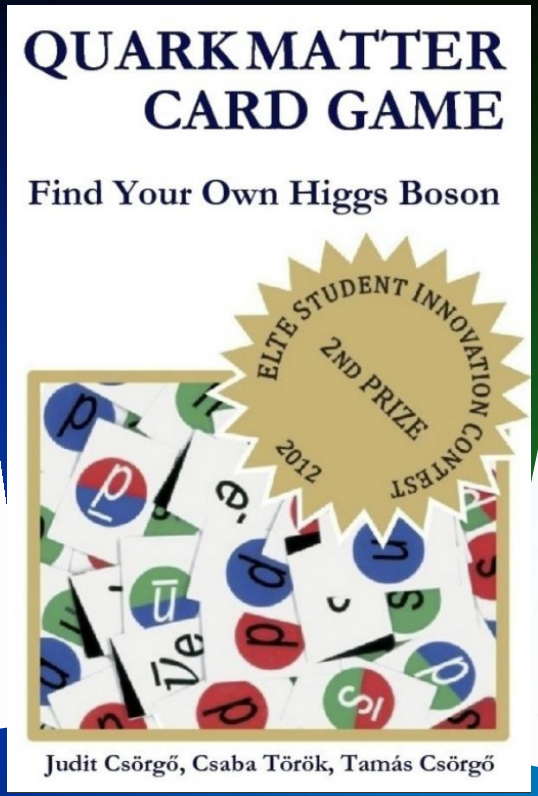
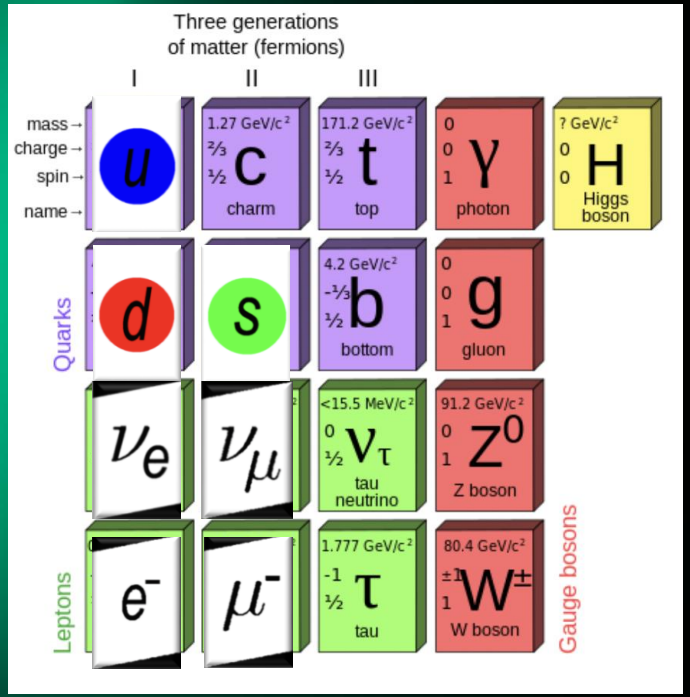


QUARK MATTER CARD GAME

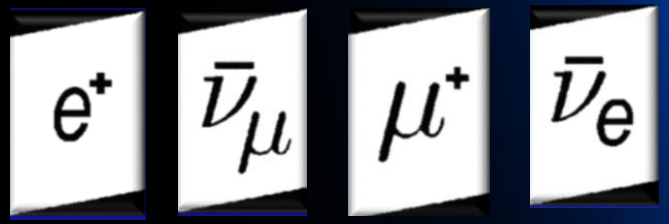
Let’s explore the deck!

Standard Model



Antiparticles

antiquarks



antileptons

Gluon cards

Gluons:

Mediate interactions between quarks
Force carriers for the strong nuclear force
8 distinc types due to color charge combinations
3 x 3 = 8 +1
Massless and travel at the speed of light

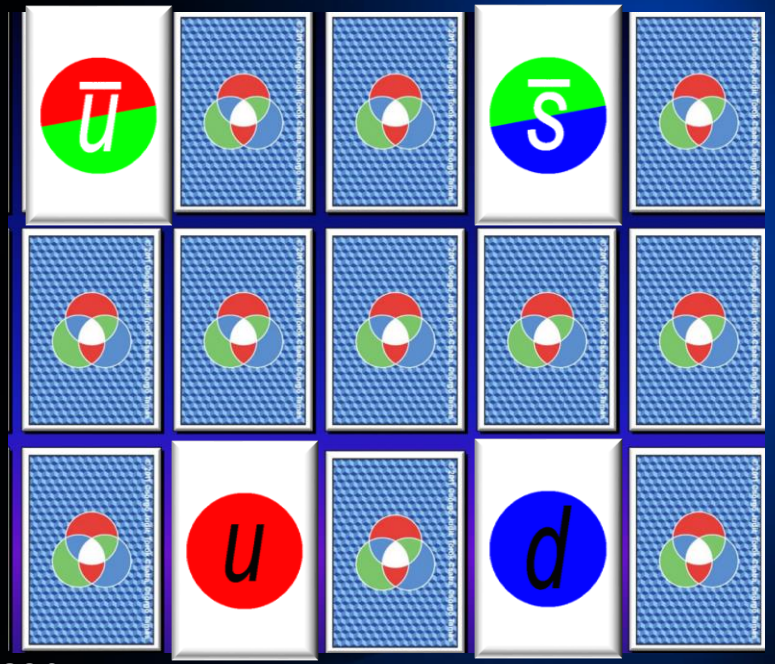
Gamification:

Introduced to cahnge colors or anticolors
to color, add anti-color and a new color
3 anti-color x 2 new color x 2 ordering = 6x2 = 12
to anti-color, add color and a new anti-color
3 color x 2 new anti-color x 2 ordering = 6x2 = 12
24 = 2 x 12

https://en.wikipedia.org/wiki/Gluon

Memory card game – Find ”pairs”!

Mesons



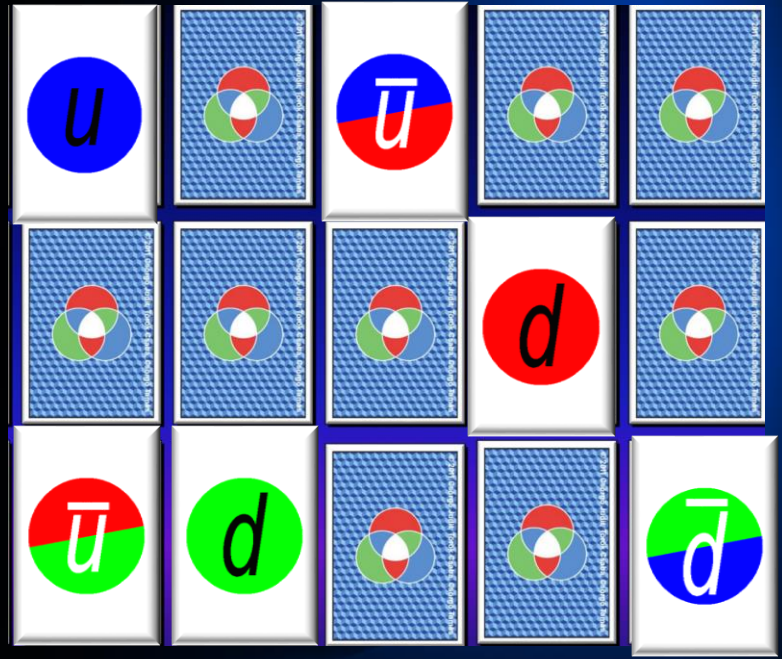
Composite particles made of quarks and antiquarks

Mediators of the strong force between nucleons in the nucleus

https://en.wikipedia.org/wiki/Meson

Memory card game – Find ”pairs”!

Baryons



Composite particles consisiting of three quarks

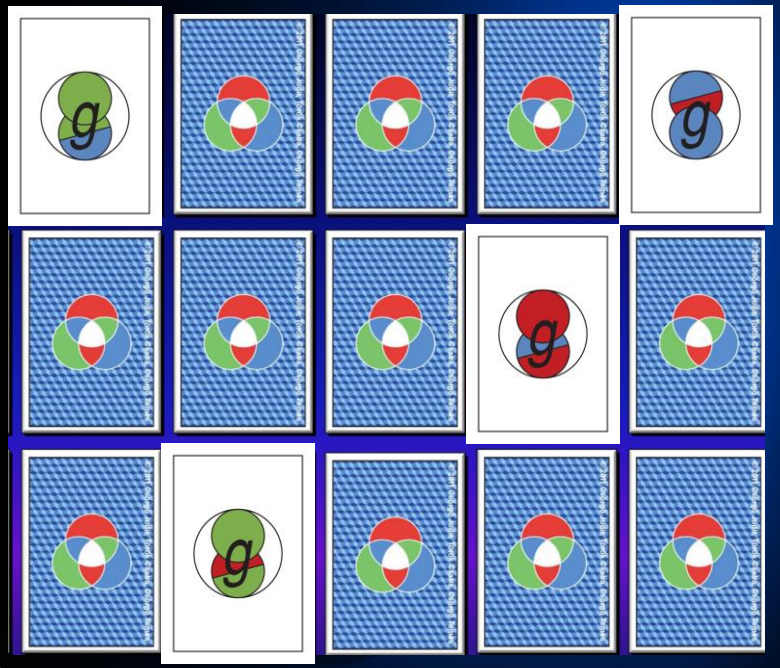
Subjecst to the strong nuclear force

https://en.wikipedia.org/wiki/Baryon

Memory card game – Find ”pairs”!

Pomeron

Describes the exchange of gluons between particles during certain high-energy scattering processes .

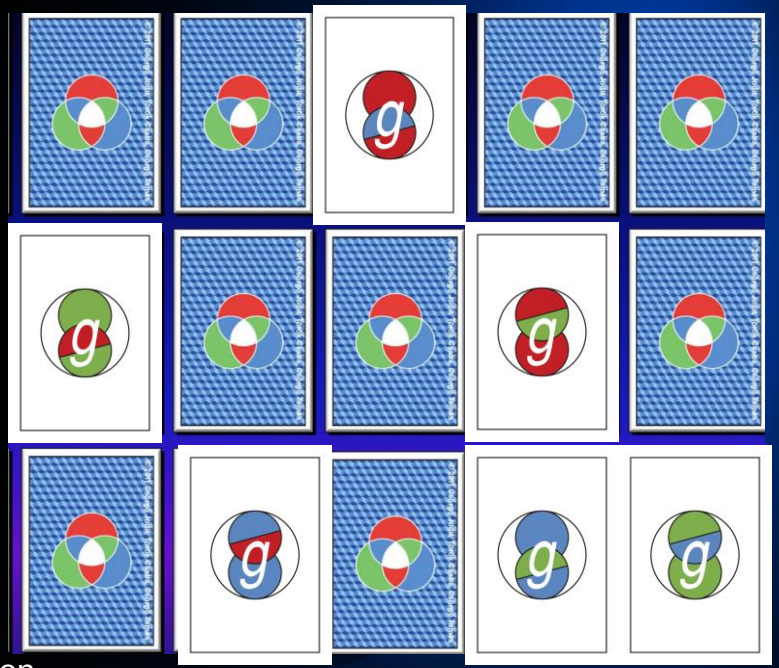


https://en.wikipedia.org/wiki/Pomeron

Memory card game – Find ”pairs”!

Odderon

In high-energy elastic scattering the odderon can contribute to the difference in scattering between particle-particle and particle-antiparticle interactions.



https://en.wikipedia.org/wiki/Odderon

Thank you for your attention!

Further links

- https://en.wikipedia.org/wiki/Odderon
- https://hu.wikipedia.org/wiki/Odderon
- https://medium.com/@georgina.zsori/interview-with-the-research-group-that-discovered-odderon-2c02adbb7852
- https://medium.com/@georgina.zsori/an-odd-interview-about-the-odderon-4bd080402518
- https://medium.com/@georgina.zsori/interjú-az-odderont-felfedező-kutatócsoporttal-189f21526598
- https://medium.com/@georgina.zsori/egy-páratlan-interjú-az-odderonról-b56bd532740d