

report of Working Group

Explaining hot topics in PP to a lay audience

November discussion

TELL ABOUT:

- 1, DARK MATTER
- 2, GRAVITY → Quantum safe
→ Missing in SM
- * 3, UNIFICATION?
- ↳ THE SAME ORIGIN?
- 4, ANTI-MATTER MATTERS

EARLY UNIVERSE

What is DE?

Any link to scalar fields?

Higgs-like

{ quarks of various flavors
Baryogenesis
Leptonogenesis
inflation

"HIDE"

NEW SYMMETRIES

↳ BREAKING

Phase transitions

NEW DIMENSIONS

NEW SCALES

NEW state of Matter

Role of Scalars beyond Mass
(P, G, etc.)

April discussion

Fundamental concepts

- What is a particle?
 - ▶ Particle-wave duality
 - ▶ Different scales
 - ▶ Properties of particle
- What are fields?
 - ▶ How to introduce?
 - ▶ Interacting fields = particles

April discussion

Fundamental concepts

- What is a particle?
 - ▶ Particle-wave duality
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- What are fields?
 - ▶ How to introduce?
 - ▶ Interacting fields = particles

Things get difficult

- Present knowledge is limited
- Analogies break down
- Concepts become very abstract

Role of WG

- Collect examples
 - ▶ Farid started
 - ▶ Barbora, Farid, Dirk discuss
 - ▶ What is best format?
- Exchange among IPPOG members
 - ▶ How to distribute further afield?
 - ▶ Determine "best practices"?