

WG1 Update
Model Building



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Who?

WG ORGANISATION

* **+50 members** with different background

- ↳ String Theory
- ↳ Model Building
- ↳ Cosmology
- ↳ Astrophysics



$\log E$

Covering many
orders of magnitude
in Energy
😊

* WG leaders: **Ilenia Brivio**, **Michele Cicoli**

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What?

WG1 TASKS

- * **Coordinate** theory advances among theorists
- * Give **theory guidance** to experimentalists (WG2, WG3, WG4)

TOP-DOWN

↳ Some questions regarding WISPs only answered in specific UV frameworks
e.g. axion quality "problem"

BOTTOM-UP

↳ keep an eye on the experiment!
IR observations fix UV properties.
e.g. cosmic birefringence

How?

ONGOING ACTIVITIES

* WG1 Monthly meeting:

- ↳ 17th April: {
- Gauge Z' to Geometric z' ; Durmus Demir
 - Formation of ultralight DM solar halos; Marco Corghetto
 - Early Dark Energy in Type IIB String Theory; Matteo Licheri

↳ Next meeting: 15th May, feel free to come!

How?

FUTURE ACTIVITIES

* 1st General meeting of COST Action

- 5-8 september 2023

- Bari

↳ 4 WG1 plenary speakers (+ parallel sessions)

* 2 TOP-DOWN + 2 BOTTOM-UP approaches to WISPs

↳ Feel free to contact WG leaders (Ilenia, Michele)
to propose (synergistic) future activities!

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