

Welcome

The screenshot shows a Mozilla Firefox browser window. The address bar contains the URL <https://indico.cern.ch/event/1376030/>. The page title is "Extended Scalar Sectors From All Angles". Below the title, it says "Oct 21 - 25, 2024" and "CERN". There is a search bar with the placeholder text "Enter your search term". A navigation menu on the left includes "Overview", "Call for Abstracts", "Timeline", "Registration", "Participant List", "Videoconference", "Code of Conduct", "Practical Information", and "Contact". The "Contact" section is highlighted in blue.

Overview

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Contact

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In this workshop, we plan to investigate *new physics* models from a large variety of viewpoints and perspectives.

After the discovery of a scalar boson that currently complies with the predictions for the Higgs boson of the Standard Model (SM), particle physics has entered an exciting era.

To date, the LHC experiments have confirmed predicted properties of such a boson, in particular the mass as well as couplings to other SM final states, to great precision. However, both theoretical and experimental accuracy still leave room for *new physics* models.

We here plan to focus on models with extended scalar sectors. Depending on the specific model, such scenarios can help to address additional questions that cannot be answered by the SM alone.

This concise workshop will bring together theorists and experimentalists to discuss current status and future perspectives for the discovery of such *new physics* scenarios.

Starts Oct 21, 2024, 9:00 AM

Ends Oct 25, 2024, 6:45 PM

[Europe/Zurich](#)

CERN

93271-001 - Council Chamber

[Go to map](#)



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Organizers

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additional support: [Elena Gianolio](#), TH workshop secretariat
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! Thanks to LPCC for support !

Goals of workshop

- (1) Investigate new physics models from a large variety of viewpoints and perspectives, with a focus on models with extended scalar sectors.**
- (2) Bring together theorists and experimentalists to discuss current status and future perspectives for the discovery of such new physics scenarios.**

In more detail...

- Current status and future perspectives at LHC and upgrades
- CP properties [including CP violation]
- Dark matter and connections to cosmology
- Scalar self-couplings
- Connections to flavour physics
- Recasting
- Precision calculations and renormalization
- EFT description

Current program

- **19 plenary talks, invited** (10 theory/ 9 experiment)
- **38 contributed talks**, mainly theory
- **TH colloquium on Wednesday by Carlos Wagner**

"The Higgs Boson : From Theory to Experiment"

[<https://indico.cern.ch/event/1394014/>]

- general structure:
9 am - 6 pm, with **coffee breaks around 10 30 am and 3 40 pm** (vary depending on day), **lunch breaks around 12 30 pm** (dito)
- social events: **welcome reception today, dinner tomorrow***

* in principle booked, ask Joe if you still want to join

Participant statistics

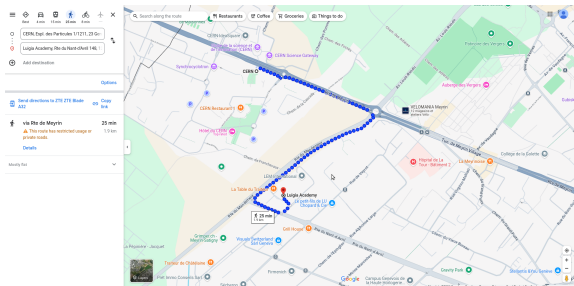
- **135 participants, 30 remote**
- **plenaries: 26 % women, 74 % men**
- **contributed talks: 17 % women, 83 % men**
- **countries in registration: Europe and African continent: 61 %, Asia and Australia: 23 %, Americas: 16%**
- did not collect career status data [but would be interesting as well]

Practicalities

- **Coffee breaks:** already mentioned
- **Lunch:** you are for yourself, **recommend R1 or adjacent places**
- ⇒ **Reception: tonight, 6 30 pm, outside**
- ⇒ **Dinner: tomorrow evening, start 7 pm,** see next slide...
[participation was by prebooking, pls ask Joe if you still want to join]
- ⇒ **Group picture Thursday before second coffee break** [here]
- **Speakers: upload your slides prior to session**
- **Thanks to all chairs !**
(do not forget: also remote participants, we should check zoom for questions etc)

Dinner tomorrow at Luigia, 7 pm

- **Luigia Academy, Rte du Nant-d'Avril 148, 1217 Meyrin**



- approx 25 mins walking (the long way)
- ⇒ **will leave from main gate around 6 30 pm**, join if you want
- **Menu can be found on indico**, choose at Restaurant
- Set price, 59 CHF, drinks are extra

First instance of a series ?

Idea:
**establish this as an international workshop/
conference series**

- at CERN or elsewhere
- similar scope, but open for suggestions

Dedicated discussion session on Thursday

before, **input via google doc possible**
(link will be sent to participants)

Questions ??

Have fun !!

Thanks goes to TH secretariat, Elena Gianolio
and LPCC for help and support

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