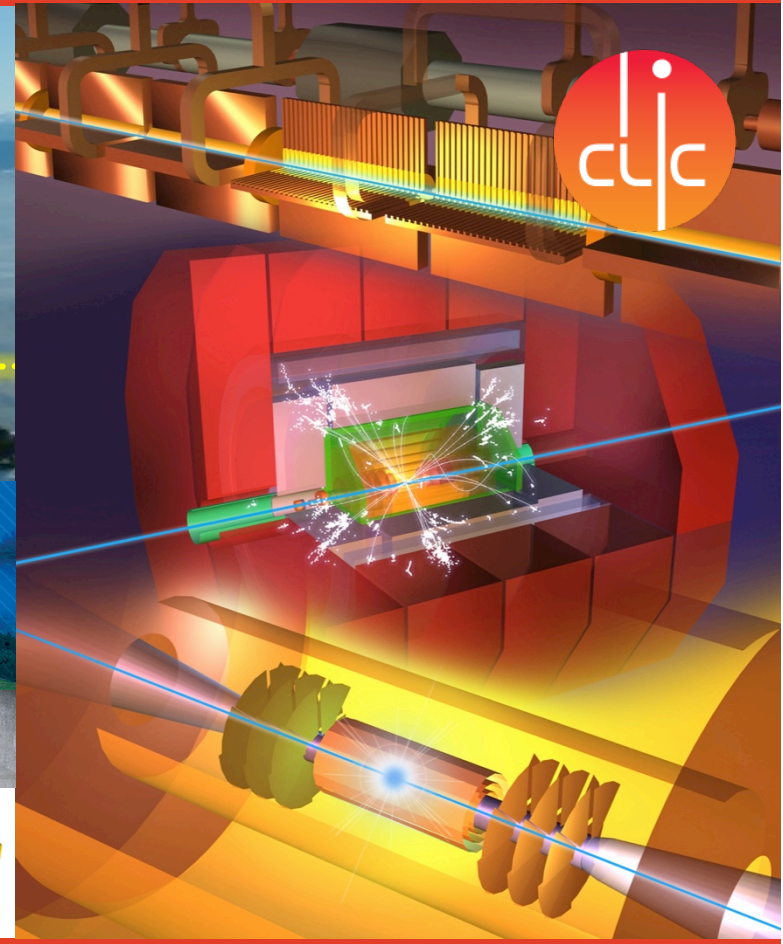


ECFA Higgs Factory activities



European LC Meeting, 6th September 2023

Aidan Robson

Activities

Since the last European LC meeting:

WG2 Physics Analysis Methods

2nd Topical Meeting on Reconstruction

– focusing on higher-level tools

11-12 July – CERN + hybrid

<https://indico.cern.ch/event/1283129/>

Forthcoming:

WG1 Physics Programme

Higgs/top/electroweak mini-workshop

on e^+e^- physics at 240-350 GeV

25 September 2023 – online

<https://indico.cern.ch/event/1311033/>

2nd ECFA Workshop

11–13 October 2023 – Paestum, Italy

→ see next slide

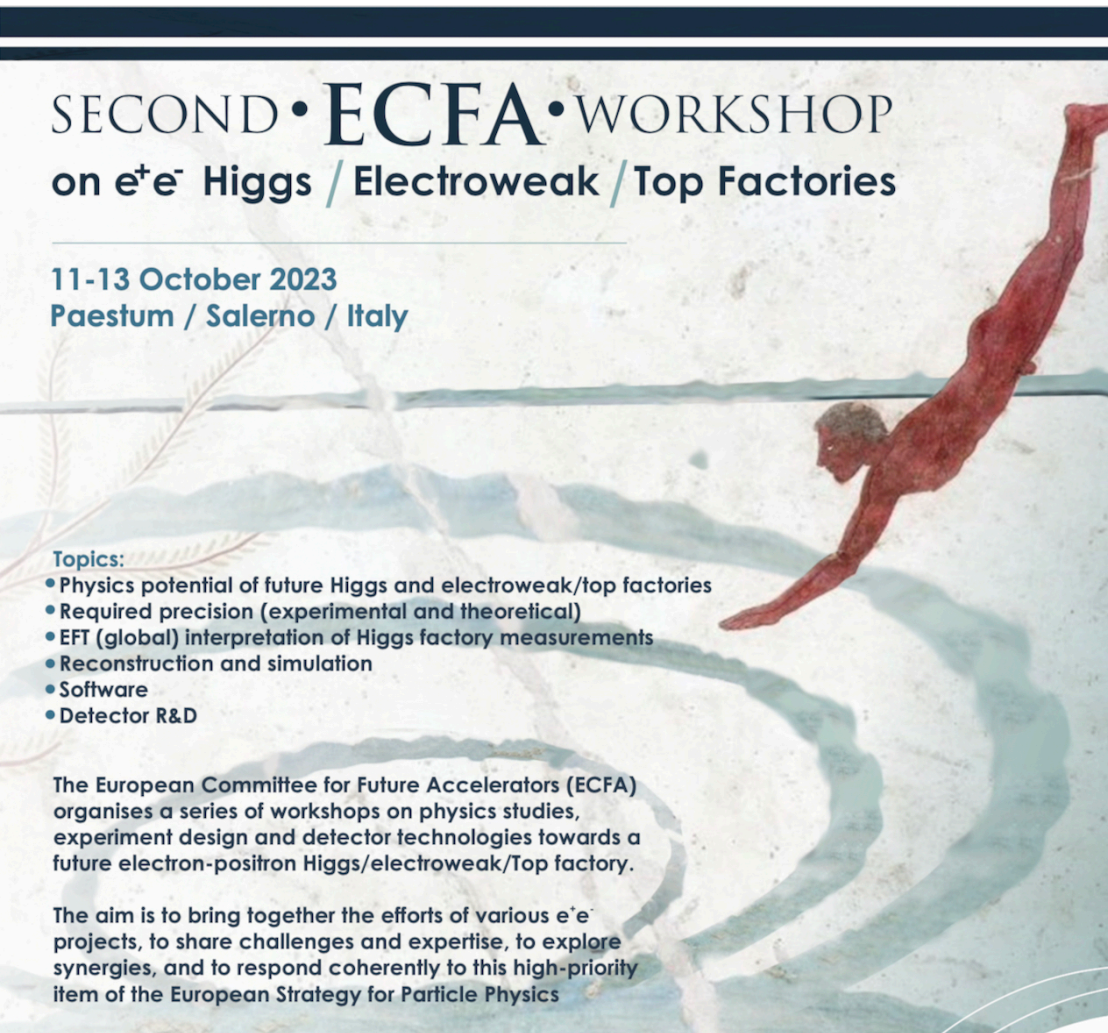
All activities linked from the main page of the study:

<https://indico.cern.ch/event/1044297/>

2nd ECFA Workshop, Paestum 11–13 October 2023

◆ Hosted by INFN Napoli, Università degli Studi di Napoli Federico II & Università degli Studi di Napoli Parthenope

◆ <https://agenda.infn.it/event/34841/>



SECOND • ECFA • WORKSHOP
on e^+e^- Higgs / Electroweak / Top Factories

11-13 October 2023
Paestum / Salerno / Italy

Topics:

- Physics potential of future Higgs and electroweak/top factories
- Required precision (experimental and theoretical)
- EFT (global) interpretation of Higgs factory measurements
- Reconstruction and simulation
- Software
- Detector R&D

The European Committee for Future Accelerators (ECFA) organises a series of workshops on physics studies, experiment design and detector technologies towards a future electron-positron Higgs/electroweak/Top factory.

The aim is to bring together the efforts of various e^+e^- projects, to share challenges and expertise, to explore synergies, and to respond coherently to this high-priority item of the European Strategy for Particle Physics

◆ ~nearly complete agenda available on indico

◆ real 'working' workshop with plenty of discussion time

◆ emphasis on:
– developments since last workshop
– and facilitating new participation via 'focus topics'

◆ → key4hep introductory software tutorial on 10th October before main workshop

◆ Programme ctte:

Patrick Koppenburg, Jenny List, Fabio Maltoni, Jorge de Blas
Patrizia Azzi, Fulvio Piccinini, Dirk Zerwas
Mary Cruz Fouz, Giovanni Marchiori, Felix Sefkow
Christos Leonidopoulos, Aidan Robson

2nd ECFA Workshop, Paestum 11–13 October 2023

Parallel - Focus Topics Parallel - WG1-HTE Parallel - WG1-HTE+FLAV Parallel - WG1-PREC see more...

Wednesday 11th

09:00	Physics landscape <i>Hotel Ariston, Paestum</i> 08:50 - 09:20				
	Focus Topic Highlight 1: Higgs Self-Coupling <i>Hotel Ariston, Paestum</i> 09:30 - 09:50				<i>Junping Tian</i>
10:00	Focus Topic Highlight 2: Strange-quark Tagging for Higgs and EW Physics <i>Hotel Ariston, Paestum</i> 10:00 - 10:20				<i>Valentina Cairo</i>
	Focus Topic Highlight 3: New Physics Opportunities in the Top Sector <i>Hotel Ariston, Paestum</i> 10:30 - 10:50				<i>Roberto Franceschini</i>
11:00	Coffee <i>Hotel Ariston, Paestum</i> 11:00 - 11:30				
	HtoSS $e+e- \rightarrow Zh$ h \rightarrow ss	Determination of the Higgs self-coupling	Wmass - W mass from WW threshold and continuum	EXscalar - New exotic scalars	CKMWW - CKM ma...
12:00	Zhang - $e+e- \rightarrow Zh$: r...	WWdiff - Full studies of WW and evW	LUMI - Precision luminosity measurement	LLPs - Long-lived particles	BKtautau - $B0 \rightarrow K0^* \tau \tau$
	TwoF - EW precision: 2-fermion final states	TTthres - Top threshold: D...	BCfrag and Gsplit - Measu...	EXtt - Exotic top decays	
13:00	Lunch <i>Hotel Ariston, Paestum</i> 13:00 - 14:00				
14:00	Beam-induced background... <i>Dimitris Ntou...</i>	Estimation of the fluxes in highly granular calorimeters <i>Vincent Boudry</i>	Searching for light scalars... <i>Giacomo Ca...</i>	New physics searches wit... <i>Mr Koushi N...</i>	

Autonomous and Topical meeting on Generators

flavour of day 1 morning

- ◆ abstract submission still open for posters
- ◆ registrations increasing, but still expecting larger/wider participation
- ◆ \rightarrow please come! and encourage your colleagues to come! – in particular early-career researchers
- ◆ Cost kept low (€460, single-room accommodation, full board all meals included) to try to make it accessible
- ◆ (also: it looks a very nice place!)