

**First General meeting of the LHC Heavy Ion Working Group
7 July 2021**

<https://indico.cern.ch/event/1048092/>

Introduction

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What are the LHC working groups?

- Established under the umbrella of the LPCC, as part of the LPCC mandate from the CERN management, and in collaboration with the management of the LHC experiments
- They address topics of common interest to several LHC experiments, primarily in the context of the interpretation of LHC data, and typically in collaboration with the theory community
- Depending on the subject, LHC WGs carry out data combinations/comparisons, assess MC tools and TH predictions and systematics, develop commonly agreed standards for various aspects of exptl analyses and provide recommendations to the physics groups of the experiments
- To adapt to different needs, WGs have a flexible organizational structure (eg subgroups)
- WG meetings are open, except when preliminary results are shared by the experiments in view of combinations etc (done in closed mtgs among the experts)
- They provide input to the LHCC for discussions related to the run plans
- List of currently active LHC WGs ****** :
 - Top quark
 - Electroweak
 - Flavour
 - Dark Matter
 - Machine Learning
 - Forward physics
 - EFT
 - Long Lived Particles
 - Heavy Ions

****** *PDF4LHC & HXSWG are supported by LPCC, but are not under its umbrella*

The LHC Heavy Ion WG

WG web page: <https://lpsc.web.cern.ch/content/lhc-hi-wg>

to join the WG mailing list:

<http://simba3.web.cern.ch/simba3/SelfSubscription.aspx?groupName=lhc-hiwig>

CONVENERS		
ALICE	Alexander Kalweit	Marta Verweij
ATLAS	Iwona Grabowska-Bold	Jiangyong Jia
CMS	Raphael Granier de Cassagnac	<i>tbd</i>
LHCb	Giulia Manca	Benjamin Audurier
THEORY	Liliana Apolinario	Urs Wiedemann

Reach all through lhc-hiwig-admin@cern.ch

WG mandate

<https://lpsc.web.cern.ch/lhc-eft-wg>

The LHC Heavy Ion Working Group (LHC HI WG) provides a framework for the structured discussion of topics relevant to the LHC heavy ion physics programme, gathering members of the LHC experiments and the theory community. The goals of the working group are to:

- Facilitate communication between the experimental and theoretical HI communities, assisting the interpretation of the data and the understanding of common theoretical and experimental systematics.
- Improve the uniformity of analysis choices, leading to a more direct comparability of experimental heavy-ion results by the LHC experiments.
- Organize systematic comparisons of measurements and the associated physics discussions, providing recommendations to experiments on how best to present the results and facilitate their reinterpretation.
- Evaluate the need of, and prepare the ground for, possible combinations of analyses from different experiments. Such combinations would emerge from the initiative of the experiments, and would then be carried out under their responsibility.

[...]

The LHC HI WG operates by holding public meetings where all relevant topics are discussed. Smaller meetings with a specific focus may be scheduled, and subgroups may be formed as deemed necessary by the SG. The subgroups would report on their activities in the plenary meetings. A special case is that of possible combinations or comparisons of experimental data, and these would be organized under the direct responsibility of the involved experiments.

Plan of this meeting

- The perspectives by the experiments on the role, activities and priorities of the WG
- The theoretical perspective
- Presentation of ongoing initiatives, to be integrated and/or harmonized with the WG activity:
 - HonexComb, part of the Strong 2020 project, whose activities will greatly benefit and complement the WG program
 - Oxygen runs discussion forum, initiated with the January 2021 Workshop