

Valerie Domcke

Particle Cosmology

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SISSA (Trieste)



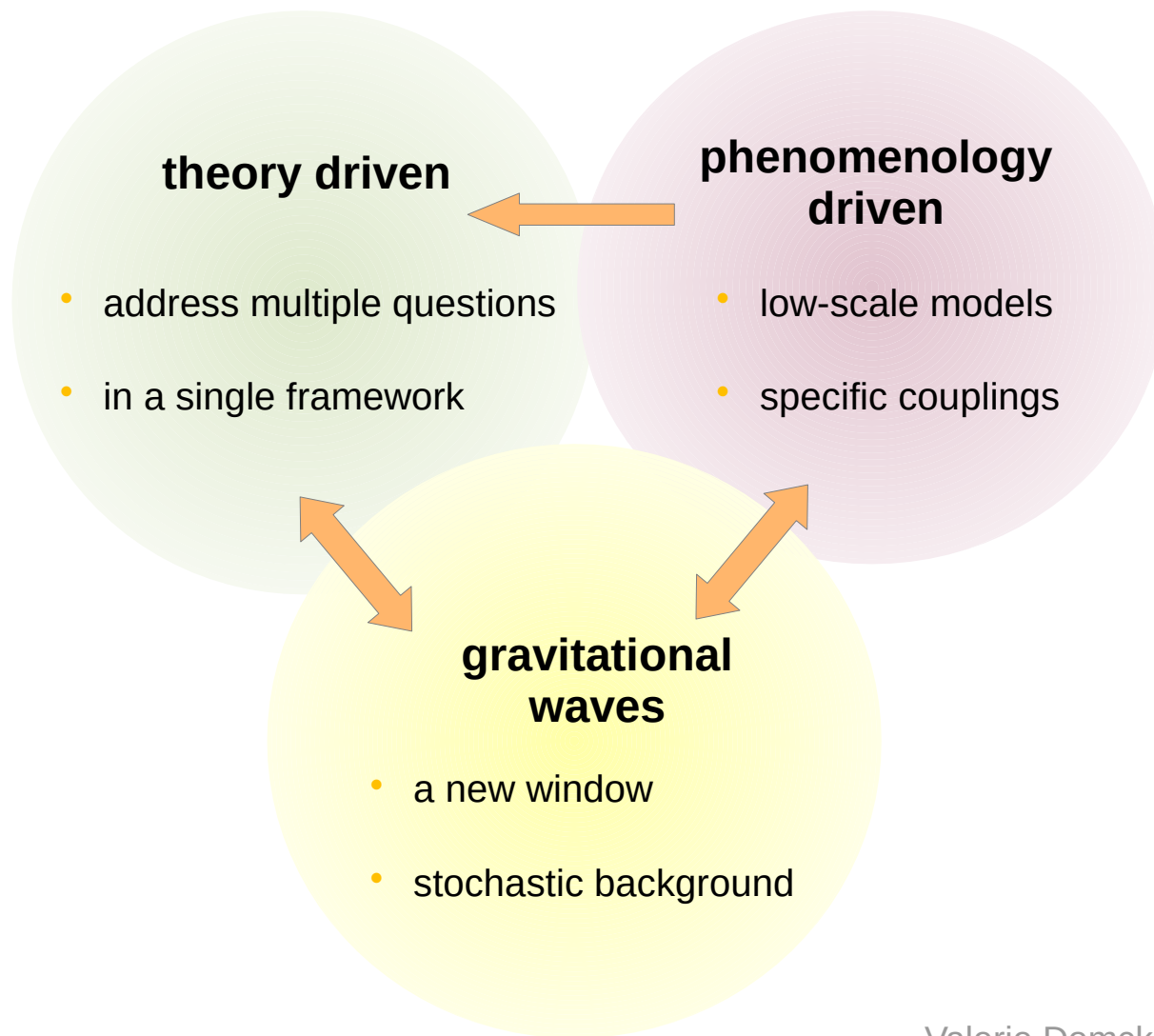
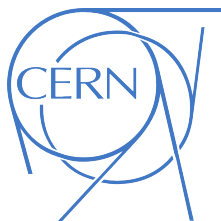
APC Paris



DESY Hamburg



2020



some recent/ongoing projects

Search for high-frequency gravitational waves

with axion detectors (2202.00695 + in progress)

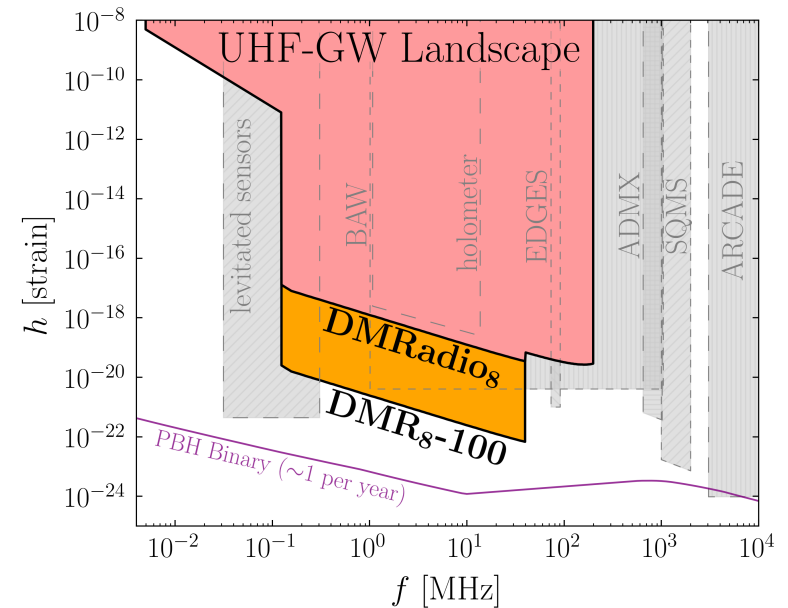
w *Camilo Garcia-Cely*, *Sung Mook Lee*, *Nick Rodd*

with atomic clocks

w *Torsten Bringman*, *Elina Fuchs*, *Joachim Kopp*

with neutron stars

w *Camilo Garcia-Cely* and *Gongjung Choi*



* at CERN

* at CERN recently

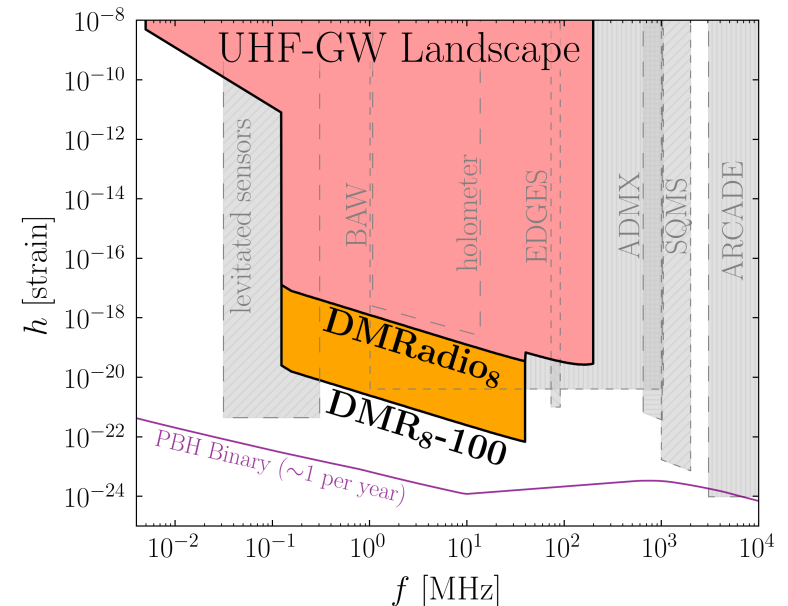
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CP violation in the early universe

Constraints on lepton (flavour) asymmetries due
to chiral plasma instability (2205.00942)
w *K. Kamada*, *K. Mukaida*, *K. Schmitz*, *M. Yamada*

from BBN
w *Miguel Escudero*, *Mario Fernandez Navarro*

as a source of baryogenesis (2210.06412 + in progress)
w *K. Kamada*, *K. Mukaida*, *K. Schmitz*, *M. Yamada* and
Raymond Co, *Keisuke Harigaya*

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tasks at CERN TH

Visitor program

- short term visitor funding (STV) for typically $O(1)$ week stays
- great possibility to have your collaborators visit you

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Equity, Diversity & Inclusion

- contact point for any questions, concerns, suggestions regarding EDI
- 'who's here when' list for visitors coming back soon
- TH twiki is back and needs your input
 - <https://theory.cern> → TH Guide (→ Computing) → Twiki
 - useful information for settling in Geneva area and CERN TH
 - from CERN TH for CERN TH
 - should contain all information you wished you had had when you arrived
 - contact for questions: [Samuel Abreu](#) or me

Welcome to the TH user web

When editing, please be careful to either save your changes or cancel (with the buttons at the end of the editing window). If you simply close the browser window/tab your changes will be lost and you will prevail a period of time.

TH department

Some information and useful links for life at CERN TH

(When adding new topics, please keep this list ordered alphabetically, for ease of use)

- The [TH guide](#) contains a lot of useful information, maintained up to date by the secretariat. If you have any questions, please first have a look there.
- Tasks Distribution: each staff member has specific tasks assigned to them, which you can find [here](#). You can however contact any staff member about any questions you might have.
- Official Travel: you can find general [guidelines](#) and more [detailed information](#) on the TH website.
- Each group has various [activities](#), and there are various [mailing lists](#) you can sign up to to stay informed. If you have any problem signing up to the mailing lists, please contact Elena. Some groups for informal communication, see [here](#).
- How to get [coffee capsules](#) for the coffee machines in the common room.

Installation in Geneva area

Here we, the TH users, can share information/experiences/suggestions to new comers in the area

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France

- [French Card and Visa](#) links to information on the titre de sejour special and other French permits
- [HousingInformation](#) - for share experiences and info about accommodation topics (please don't put announcements here - or remember to remove them once they are obsolete)
- [Schoolinfo](#) about children's schools - *please add information*

Switzerland

- [HousingInformation](#) for share experiences and info about accommodation topics (please don't put announcements here - or remember to remove them once they are obsolete)
- [Schoolinfo](#) about children's schools - *please add information*
- [Swiss Card and Visa](#) links to information on the carte de legitimation and other Swiss permits
- [TaxNumber](#) Info on how to get your Swiss tax number if you live in Switzerland - may be asked by some admin authorities or foreign banks for fiscal reasons

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Travel Guidelines

We, CERN TH department, recognise the environmental impact resulting from the extensive professional travel, particularly by air, customary in our scientific community. We subscribe to the urgent need to reduce our greenhouse gas (GHG) emissions rapidly in accordance with the goals of the [Paris climate agreement](#) and of the [CERN environment report](#). At the same time, we value international exchange as a pillar of scientific progress and strive to provide excellent research conditions for international researchers at CERN and beyond, in particular promoting young scientists. This document provides some guidelines on achieving these goals, consciously balancing scientific value and environmental cost.

We consider **hybrid and online talks** best practice, and will continue to offer this format for seminars and conferences organised by CERN TH. We also recognise the value of in-person interaction for scientific exchange and collaboration. Which format is best suited for the scientific goals of a given event needs to be evaluated on a case by case basis, taking also into account that online events offer broader access to the worldwide scientific community. We will improve the technology support for online events to facilitate interaction and collaboration.

We critically consider the scientific value of each **business trip** and replace it by a virtual meeting when adequate. We maximise the scientific value of an in-person trip, considering for example a longer stay or a combination of several trips. We explicitly encourage our visitors to do the same.

When travel is necessary, we recognise that the GHG emissions of **air travel** are many times higher than travel by train for trips within Europe. We strongly encourage the use of trains whenever possible and regularly evaluate our internal regulations to empower climate conscious choices. When air travel is necessary, we encourage the use of a [GHG emission calculator](#) to compare the environmental cost of different flight options.

We plan to systematically **quantify and monitor** the GHG emissions related to the operations of CERN TH, evaluating and improving our measures for GHG reduction.

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Get in touch with me if you have questions or suggestions regarding sustainability in HEP

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