

**Working Group Meeting of
COST Action COSMIC
WISPers (CA21106)**

Report of Contributions

Contribution ID: 1

Type: **not specified**

Axion Strings

Thursday 13 February 2025 11:30 (45 minutes)

Ref: <https://inspirehep.net/literature/2842154>

Author: Prof. HINDMARSH, Mark (University of Helsinki, University of Sussex)

Presenter: Prof. HINDMARSH, Mark (University of Helsinki, University of Sussex)

Session Classification: Talks

Contribution ID: 2

Type: **not specified**

General WISP

Thursday 13 February 2025 12:15 (45 minutes)

Ref: <https://inspirehep.net/literature/2176766>

Author: Dr VASKONEN, Ville

Presenter: Dr VASKONEN, Ville

Session Classification: Talks

Contribution ID: 3

Type: **not specified**

Astrophysical signatures of accreting axion stars

Thursday 13 February 2025 14:30 (45 minutes)

Author: SIGL, Guenter

Presenter: SIGL, Guenter

Session Classification: Talks

Contribution ID: 4

Type: **not specified**

High-frequency gravitational waves shining in photons in Astrophysical magnetic fields

Thursday 13 February 2025 15:15 (45 minutes)

High-frequency gravitational waves ($f \gtrsim 10^7$ MHz) are a smoking gun for the existence of exotic physics. In particular, GW backgrounds lying in the high-frequency would allow one to probe inflation, first-order phase transitions, topological defects and primordial black holes. The lack of current and future gravitational wave experiments sensitive at those frequencies leads to the need of employing different indirect techniques. Notably, one of the most promising one is constituted by graviton-photon conversions in magnetic fields. In this talk, I will discuss possible signature of gravitational wave conversions within astrophysical magnetic fields, focusing on the case Galactic B-fields. In this regard, I will illustrate how graviton-to-photon conversions may lead to unexpected imprints in gamma-ray observations in the range of frequencies $f \sim 10^9 - 10^{26}$ Hz. Hence, the absence of any significant evidence for a diffuse photon flux induced by gravitational-wave conversions places stringent constraints on the gravitational-wave strain h_c

Author: LELLA, Alessandro

Presenter: LELLA, Alessandro

Session Classification: Talks

Contribution ID: 5

Type: **not specified**

NA62: new results

Thursday 13 February 2025 16:30 (45 minutes)

Author: DOBRICH, Babette (Max Planck Society (DE))

Presenter: DOBRICH, Babette (Max Planck Society (DE))

Session Classification: Talks

Contribution ID: 6

Type: **not specified**

GravNet - A global network for the search of high frequency gravitational waves

Thursday 13 February 2025 17:15 (45 minutes)

Author: GATTI, Claudio (INFN e Laboratori Nazionali di Frascati (IT))

Presenter: GATTI, Claudio (INFN e Laboratori Nazionali di Frascati (IT))

Session Classification: Talks

Contribution ID: 7

Type: **not specified**

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Thursday 13 February 2025 09:30 (45 minutes)

Author: Prof. BAUER, MARTIN (IPPP Durham)

Presenter: Prof. BAUER, MARTIN (IPPP Durham)

Session Classification: Talks

Contribution ID: 8

Type: **not specified**

Testing the far UV with an axion coupled to photons

Thursday 13 February 2025 10:15 (45 minutes)

After a brief introduction to axions in string theory, discussing their quality and the origin of their couplings, I will review recent progress in understanding their properties in different string theories from type IIB to heterotic string theories. I will show how the discovery of a light ALP — that is, above the QCD line — is incompatible with unification and heterotic string theory. Finally I will discuss our limitations and the questions that remain open.

Author: REIG LOPEZ, Mario (University of Oxford)

Presenter: REIG LOPEZ, Mario (University of Oxford)

Session Classification: Talks

Contribution ID: 9

Type: **not specified**

WG 1 Report

Friday 14 February 2025 11:30 (15 minutes)

Session Classification: WG Reports

Contribution ID: **10**

Type: **not specified**

WG 2 Report

Friday 14 February 2025 11:45 (15 minutes)

Session Classification: WG Reports

Contribution ID: 11

Type: **not specified**

WG 3 Report

Friday 14 February 2025 12:00 (15 minutes)

Session Classification: WG Reports

Contribution ID: 12

Type: **not specified**

WG 4 Report

Friday 14 February 2025 12:15 (15 minutes)

Session Classification: WG Reports

Contribution ID: 13

Type: **not specified**

WG 5 Report

Friday 14 February 2025 12:30 (15 minutes)

Session Classification: WG Reports

Contribution ID: 14

Type: **not specified**

New Opportunities for Cosmic WISPerS

Friday 14 February 2025 09:30 (45 minutes)

Author: RINGWALD, Andreas

Presenter: RINGWALD, Andreas

Session Classification: Highlights from CA 21106 Community

Contribution ID: 15

Type: **not specified**

News about PBC

Friday 14 February 2025 10:15 (45 minutes)

Author: JAECKEL, Joerg (ITP Heidelberg)

Presenter: JAECKEL, Joerg (ITP Heidelberg)

Session Classification: Highlights from CA 21106 Community