**Subject:** Theory Seminar today, 14:00 c.t.

From: domingo@physik.uni-bonn.de

**Date:** 17.01.22, 10:30

**To:** alle@th.physik.uni-bonn.de **CC:** camilo.garcia.cely@desy.de

Dear all,

This is a reminder of today's theory seminar at 14:15 (14:00 c.t.) in Seminar Room 1 (or accessible via Zoom)

Looking forward to seeing you there,

Florian

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THEORY SEMINAR: Monday January, 17th, 14:00 c.t. in Seminar Room 1

A limited number of masked attendees with 3G status will be admitted in the room. Alternatively, the seminar can be followed via Zoom.

Title: New ideas for detecting gravitational waves

Speaker: Camilo Garcia Cely (DESY)

Abstract: In complete analogy with axion dark matter, gravitational waves are converted into electromagnetic radiation when they propagate in magnetic fields. I will explain how this effect can be used to detect gravitational waves in laboratory experiments. I will also examine gamma-ray observations by Fermi-LAT and HESS strongly suggesting the existence of a non-vanishing cosmic magnetic field. Then, I will show how the consequent conversion of gravitational waves into radio waves might distort the CMB, leading to bounds that exceed those from current terrestrial experiments. Finally, I will discuss future prospects.

Based on: PhysRevLett.126.021104

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Florian Domingo is inviting you to a scheduled Zoom meeting.

Topic: THEORY SEMINAR: Monday January, 17th, 14:00 c.t.

Time: 17 Jan. 2022 02:00 PM Paris

Join Zoom Meeting

https://uni-bonn.zoom.us/j/94252545811?pwd=anlDSm1aM2kzTU02VVAyTTdnbnhzUT09

Meeting ID: 942 5254 5811

Password: 716017 One tap mobile

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Join via SIP protocol 94252545811@131.220.109.56

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