

**Joint IQ Initiative & PITT  
PACC Workshop: Axioms,  
Fundamental and Synthetic**

**Report of Contributions**

Contribution ID: 1

Type: **not specified**

# **Axion dark matter conversion into condensed matter axion**

*Thursday 6 April 2023 11:30 (35 minutes)*

**Presenters:** CHIGUSA, So; CHIGUSA, So (University of Tokyo)

Contribution ID: 2

Type: **not specified**

# **Axionic and Phonon Polaritons for Axion Dark Matter Detection**

*Thursday 6 April 2023 10:55 (35 minutes)*

**Presenters:** SCHÜTTE-ENGEL, Jan; SCHÜTTE-ENGEL, Jan (RWTH)

Contribution ID: 3

Type: **not specified**

## **Axion electrodynamics and its applications to the Kerr effect in topological anti-ferromagnets (I)**

*Thursday 6 April 2023 14:40 (40 minutes)*

**Presenter:** Dr AHN, Junyeong (Harvard University)

Contribution ID: 4

Type: **not specified**

## **Axion electrodynamics and its applications to the Kerr effect in topological anti-ferromagnets (II)**

*Thursday 6 April 2023 16:00 (40 minutes)*

**Presenter:** Prof. XU, Suyang (Harvard University)

Contribution ID: 5

Type: **not specified**

## The hunt for wave-like dark matter at SLAC

*Friday 7 April 2023 11:25 (35 minutes)*

**Presenters:** BARTRAM, Chelsea (SLAC); BARTRAM, Chelsea

Contribution ID: 6

Type: **not specified**

## The HAYSTAC Experiment

*Thursday 6 April 2023 14:00 (40 minutes)*

**Presenters:** SPELLER, Danielle (Yale University); SPELLER, Danielle (Johns Hopkins)

Contribution ID: 7

Type: **not specified**

## **Axion electrodynamics in strong topological insulators**

*Friday 7 April 2023 09:00 (35 minutes)*

**Presenter:** Prof. NARANG, Prineha (UCLA)

Contribution ID: 8

Type: **not specified**

## **Axion detection via stimulated emission**

*Thursday 6 April 2023 09:10 (35 minutes)*

**Presenter:** CHOU, Aaron

Contribution ID: 9

Type: **not specified**

## The piezoaxionic effect

*Friday 7 April 2023 15:50 (35 minutes)*

**Presenter:** Dr MADDEN, Amalia (Perimeter Institute for Theoretical Physics)

Contribution ID: **10**

Type: **not specified**

# Vanishing of Casimir forces in axion electrodynamics

*Thursday 6 April 2023 09:45 (35 minutes)*

**Presenters:** EMA, Yohei; EMA, Yohei (Deutsches Elektronen-Synchrotron DESY)

Contribution ID: 11

Type: **not specified**

## **The CASPER Experiment & future avenues for axion detection using AMO systems**

*Friday 7 April 2023 14:00 (35 minutes)*

**Presenter:** SUSHKOV, Alexander

Contribution ID: 12

Type: **not specified**

## **Sensitivity of spin-precession axion experiments**

*Friday 7 April 2023 14:35 (35 minutes)*

**Presenter:** Dr DROR, Jeff (Lawrence Berkeley National Laboratory)

Contribution ID: 13

Type: **not specified**

## **Detectability of axion dark matter with phonon polaritons and magnons**

*Friday 7 April 2023 10:50 (35 minutes)*

**Presenter:** TRICKLE, Tanner (California Institute of Technology)

Contribution ID: 14

Type: **not specified**

## **Detection of axions with opto-mechanical cavities**

*Saturday 8 April 2023 10:50 (40 minutes)*

**Presenter:** WANG, Yikun (THE UNIVERSITY OF CHICAGO)

Contribution ID: 15

Type: **not specified**

## **Probing microscopic origins of axions by the chiral magnetic effect**

*Saturday 8 April 2023 09:35 (35 minutes)*

**Presenter:** Dr IM, Sang Hui (IBS CTPU)

Contribution ID: 17

Type: **not specified**

## Chiral fermions and the chiral magnetic effect

*Saturday 8 April 2023 09:00 (35 minutes)*

**Presenters:** LI, Qiang (Stony Brook University/Brookhaven National Laboratory); Prof. LI, Qiang (Stony Brook University/Brookhaven National Laboratory)

Contribution ID: 18

Type: **not specified**

## **Ultrafast Imaging of Plasmonic Vortex Fields with Axion-type Response**

*Friday 7 April 2023 09:35 (35 minutes)*

**Presenter:** GHOSH, Atreyie (University of Pittsburgh)

Contribution ID: **19**

Type: **not specified**

## **Workshop Banquet**

*Friday 7 April 2023 17:30 (3h 30m)*

Contribution ID: 20

Type: **not specified**

## Welcome by the IQ Initiative Director

*Thursday 6 April 2023 09:00 (10 minutes)*

**Presenter:** Prof. LIU, W. Vincent (University of Pittsburgh)

Contribution ID: 21

Type: **not specified**

## Discussion

*Thursday 6 April 2023 12:05 (15 minutes)*

Contribution ID: 22

Type: **not specified**

## Discussions

*Friday 7 April 2023 12:00 (20 minutes)*

Contribution ID: 23

Type: **not specified**

## Discussion

*Thursday 6 April 2023 16:40 (20 minutes)*

Contribution ID: 24

Type: **not specified**

## Discussion

*Friday 7 April 2023 16:25 (35 minutes)*

Contribution ID: 25

Type: **not specified**

## Discussion

*Saturday 8 April 2023 12:05 (15 minutes)*

Contribution ID: 26

Type: **not specified**

## **New Direction in Axion Detection**

*Saturday 8 April 2023 11:30 (35 minutes)*

**Presenter:** RAJENDRAN, Surjeet