

# **When the M meets the P**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## Around the Riemann Hypothesis

*Thursday, 13 December 2018 14:00 (1 hour)*

A hypothesis concerning the zeros of a simple function is among the oldest unsolved mathematical problems of today.

We will describe the context and give examples to illustrate how the question is considered important both in and out of mathematics. The original conjecture has now been generalised to a large class of functions and has generated a great deal of research some of which we will mention in this talk.

**Presenter:** BHOWMIK, Gautami

**Session Classification:** IRMP

Contribution ID: 2

Type: **not specified**

## Infinite-dimensional Algebras, Asymptotic Symmetries and Black Hole Entropy

*Thursday, 13 December 2018 15:00 (1 hour)*

The Black Hole Entropy Problem is a longstanding puzzle paving the road to the construction of a Quantum Theory of Gravity. After reviewing what the problem actually is, I will discuss approaches that have been taken in the last 20 years to tackle it. A key ingredient will be that of Asymptotic Symmetries that played a significant role in the discovery and subsequent developments of the so-called gauge/gravity (or holographic) dualities. The existence of these Asymptotic Symmetries indeed suggest a dual description of a gravitational system (including black holes) in terms of certain types of Field Theories exhibiting an infinite-dimensional symmetry. I will discuss how these observations hint at a possible resolution of the Black Hole Entropy Problem.

**Presenter:** DETOURNAY, Stéphane

**Session Classification:** IRMP

Contribution ID: 3

Type: **not specified**

## **MoMEMta, a software for the computation of the Matrix Element weights**

*Thursday, 13 December 2018 16:34 (7 minutes)*

**Presenter:** BURY, Florian

**Session Classification:** IRMP: gong session

Contribution ID: 4

Type: **not specified**

## **Bipartite fidelity of critical dense polymers**

*Thursday, 13 December 2018 16:48 (7 minutes)*

**Presenter:** PAREZ, Gilles

**Session Classification:** IRMP: gong session

Contribution ID: 5

Type: **not specified**

## **The nature of dark matter - WIMPs and beyond**

*Thursday, 13 December 2018 16:20 (7 minutes)*

**Presenter:** HEISIG, Jan

**Session Classification:** IRMP: gong session

Contribution ID: 6

Type: **not specified**

## **On continuous one-parameter subgroups**

*Thursday, 13 December 2018 16:27 (7 minutes)*

**Presenter:** MARQUIS, Timothée

**Session Classification:** IRMP: gong session

Contribution ID: 7

Type: **not specified**

## **Abrikosov lattices in superconductivity**

*Thursday, 13 December 2018 16:41 (7 minutes)*

**Presenter:** RODIAC, Remy

**Session Classification:** IRMP: gong session



Contribution ID: 8

Type: **not specified**

## **Heavy ions at LHC: A brief introduction to challenges and achievements so far**

*Thursday, 13 December 2018 16:55 (7 minutes)*

**Presenter:** KRINTIRAS, georgios

**Session Classification:** IRMP: gong session

Contribution ID: 9

Type: **not specified**

## Neutrinos, Their Masses, and Large Hadron Collisions

*Thursday, 13 December 2018 17:02 (7 minutes)*

**Presenter:** RUIZ, Richard (Universite Catholique de Louvain)

**Session Classification:** IRMP: gong session

Contribution ID: **10**

Type: **not specified**

## **Functional relations in a lattice model of dilute loops**

*Thursday, 13 December 2018 17:09 (7 minutes)*

**Presenter:** MORIN-DUCHESNE, Alexi

**Session Classification:** IRMP: gong session

Contribution ID: 11

Type: **not specified**

## Collinear Splitting Functions in QCD

*Thursday, 13 December 2018 17:16 (7 minutes)*

**Presenter:** MICHEL, Martin (CP3)

**Session Classification:** IRMP: gong session

Contribution ID: 12

Type: **not specified**

## Mal'tsev categories

*Thursday, 13 December 2018 17:23 (7 minutes)*

**Presenter:** DUVIEUSART, Arnaud

**Session Classification:** IRMP: gong session