

TPPC 2024 THEORY RETREAT



Report of Contributions

Contribution ID: 1

Type: **not specified**

Particle production from inhomogeneities

Tuesday, 17 December 2024 15:55 (20 minutes)

Presenter: REDI, Michele (Istituto Nazionale di Fisica Nucleare)

Session Classification: Tuesday afternoon

Contribution ID: 2

Type: **not specified**

Lepton dipoles at lepton colliders

Presenter: BUTTAZZO, Dario (INFN Pisa)

Session Classification: Thursday morning

Contribution ID: 3

Type: **not specified**

Minimally beyond the SM fermions: isosinglet vectorlike leptons at e^+e^- colliders

First, I will argue that the new fermions must necessarily be vectorlike under the SM gauge group, and consider the prospects for one of the simplest non-trivial fermionic extension: weak isosinglet charged vectorlike leptons. I will show how an electron-positron collider, including a near future Higgs/top factory, can act as a discovery machine for these particles that seem to pose a much more difficult challenge at (future) hadron colliders.

Presenter: BHATTIPROLU, Prudhvi Nikhil

Session Classification: Tuesday afternoon

Contribution ID: 4

Type: **not specified**

Stochastic DM

Tuesday, 17 December 2024 15:30 (20 minutes)

Presenter: TESI, Andrea (Istituto Nazionale di Fisica Nucleare)

Session Classification: Tuesday afternoon

Contribution ID: 5

Type: **not specified**

How charming can the Higgs be?

Thursday, 19 December 2024 11:15 (20 minutes)

Presenter: VALLI, Mauro (Istituto Nazionale di Fisica Nucleare)

Session Classification: Thursday morning

Contribution ID: 6

Type: **not specified**

Confinement of monopoles: the slingshot dynamics

Tuesday, 17 December 2024 18:05 (20 minutes)

Presenter: ZANTEDESCHI, Michael (INFN Pisa)

Session Classification: Tuesday afternoon

Contribution ID: 7

Type: **not specified**

Rayleigh scattering of scalar dark matter

Wednesday, 18 December 2024 16:00 (20 minutes)

Presenter: MARINO, Giulio (Istituto Nazionale di Fisica Nucleare)

Session Classification: Wednesday afternoon

Contribution ID: 8

Type: **not specified**

(H)ALPing the 511 keV line: A thermal DM interpretation of the 511-keV emission in the Galactic Centre

Wednesday, 18 December 2024 16:25 (20 minutes)

Presenter: AGHAIE MOGHADAM OZBAK, Mohammad (Istituto Nazionale di Fisica Nucleare)

Session Classification: Wednesday afternoon

Contribution ID: 9

Type: **not specified**

Indirect Detection of the Minimal Dark Matter 5-plet: Present and Future Directions

Wednesday, 18 December 2024 16:50 (20 minutes)

Presenter: DONDARINI, Alessandro (Istituto Nazionale di Fisica Nucleare)

Session Classification: Wednesday afternoon

Contribution ID: **10**

Type: **not specified**

Resonant U1 leptoquark production at the LHC

Thursday, 19 December 2024 09:55 (20 minutes)

Presenter: KORAJAC, Arman (INFN Pisa)

Session Classification: Thursday morning

Contribution ID: 11

Type: **not specified**

Hunting axion dark matter with anti-ferromagnets

Wednesday, 18 December 2024 17:45 (20 minutes)

Presenter: CATINARI, Pier Giuseppe (INFN Roma1)

Session Classification: Wednesday afternoon

Contribution ID: 12

Type: **not specified**

Schwinger pair production in de Sitter revisited

Tuesday, 17 December 2024 16:20 (20 minutes)

Presenter: UBALDI, Lorenzo

Session Classification: Tuesday afternoon

Contribution ID: 13

Type: **not specified**

Large scale structure

Wednesday, 18 December 2024 09:30 (20 minutes)

Presenter: SIMONOVIC, Marko (University of Florence)

Session Classification: Wednesday morning

Contribution ID: 14

Type: **not specified**

An iterative method to build non-linear relations between cosmological observables

Wednesday, 18 December 2024 10:20 (20 minutes)

Presenter: Dr SCHIAVONE, Tiziano (Galileo Galilei Institute for Theoretical Physics)

Session Classification: Wednesday morning

Contribution ID: 15

Type: **not specified**

Exploring the Flavor Symmetry Landscape

Thursday, 19 December 2024 10:50 (20 minutes)

Presenter: GLIOTI, Alfredo (INFN Roma1)

Session Classification: Thursday morning

Contribution ID: 16

Type: **not specified**

Cosmological collider non-Gaussianity from multiple scalars and R2 gravity

Wednesday, 18 December 2024 11:40 (20 minutes)

Presenter: STRUMIA, Alessandro (PI)

Session Classification: Wednesday morning

Contribution ID: 17

Type: **not specified**

TBA

Thursday, 19 December 2024 09:30 (20 minutes)

Presenter: TAMMARO, Michele (Istituto Nazionale di Fisica Nucleare)

Session Classification: Thursday morning

Contribution ID: **18**

Type: **not specified**

Interference resurrection

Tuesday, 17 December 2024 17:15 (20 minutes)

Presenter: PANICO, Giuliano (Istituto Nazionale di Fisica Nucleare)

Session Classification: Tuesday afternoon

Contribution ID: **19**

Type: **not specified**

Implications of DESI measurements

Wednesday, 18 December 2024 09:55 (20 minutes)

Presenter: NOTARI, Alessio

Session Classification: Wednesday morning

Contribution ID: 20

Type: **not specified**

Partially composite dark matter

Wednesday, 18 December 2024 18:10 (20 minutes)

Presenter: DI LECCE, Andrea (INFN Pisa)

Session Classification: Wednesday afternoon

Contribution ID: 21

Type: **not specified**

Ultraheavy Composite Dark Matter

Wednesday, 18 December 2024 18:35 (20 minutes)

Presenter: PALMISANO, Stefano (Istituto Nazionale di Fisica Nucleare)

Session Classification: Wednesday afternoon

Contribution ID: 22

Type: **not specified**

New physics in spin entanglement

Tuesday, 17 December 2024 17:40 (20 minutes)

Presenter: DUCH, Mateusz (Istituto Nazionale di Fisica Nucleare)

Session Classification: Tuesday afternoon

Contribution ID: 23

Type: **not specified**

The Quadratic Quasi-Normal Modes of a Schwarzschild Black Hole

Wednesday, 18 December 2024 11:15 (20 minutes)

Presenter: BUCCIOTTI, Bruno (Scuola Normale Superiore di Pisa)

Session Classification: Wednesday morning

Contribution ID: **24**

Type: **not specified**

TBA

Presenter: DE CURTIS, Stefania (Istituto Nazionale di Fisica Nucleare)

Session Classification: Wednesday afternoon