

Theoretical Aspects of Astroparticle Physics, Cosmology and Gravitation - 2021

Report of Contributions

Contribution ID: 1

Type: **not specified**

L. Covi: Particle dark matter: WIMPs, axions and ALPs

Lecture 2:

Contribution ID: 2

Type: **not specified**

Laura Covi: Particle dark matter: WIMPs, axions and ALPs

Monday, 15 March 2021 11:15 (1h 45m)

Lecture 1: Introduction to DM and cosmology

Contribution ID: 3

Type: **not specified**

Markus Ahlers: Multimessenger astronomy

Monday, 15 March 2021 15:00 (1h 45m)

Lecture 1: Cosmic rays I

Contribution ID: 4

Type: **not specified**

Yoann Genolini: Multimessenger astronomy

Tuesday, 16 March 2021 10:00 (1 hour)

Tutorial 1

Contribution ID: 5

Type: **not specified**

Markus Ahlers: Multimessenger astronomy

Tuesday, 16 March 2021 11:15 (1h 45m)

Lecture 2: Cosmic Rays II

Contribution ID: 6

Type: **not specified**

Laura Covi: Particle dark matter: WIMPs, axions and ALPs

Tuesday, 16 March 2021 15:00 (1h 45m)

Lecture 2: DM from thermal equilibrium: WIMP mechanism

Contribution ID: 7

Type: **not specified**

Sarif Khan : Particle dark matter: WIMPs, axions and ALPs

Wednesday, 17 March 2021 10:00 (1 hour)

Tutorial 1

Contribution ID: 8

Type: **not specified**

Laura Covi: Particle dark matter: WIMPs, axions and ALPs

Wednesday, 17 March 2021 11:15 (1h 45m)

Lecture 3: Phenomenology of WIMPs

Contribution ID: 9

Type: **not specified**

Markus Ahlers: Multimessenger astronomy

Wednesday, 17 March 2021 15:00 (1h 45m)

Lecture 3: Radiative processes

Contribution ID: **10**

Type: **not specified**

Yoann Genolini: Multimessenger astronomy

Thursday, 18 March 2021 10:00 (1 hour)

Tutorial 2

Contribution ID: **11**

Type: **not specified**

Markus Ahlers: Multimessenger astronomy

Thursday, 18 March 2021 11:15 (1h 45m)

Lecture 4: Cosmic Neutrinos

Contribution ID: **12**

Type: **not specified**

Laura Covi: Particle dark matter: WIMPs, axions and ALPs

Thursday, 18 March 2021 15:00 (1h 45m)

Lecture 4: DM without thermal equilibrium: misalignment mechanism/FIMP

Contribution ID: 13

Type: **not specified**

Sarif Khan: Particle dark matter: WIMPs, axions and ALPs

Friday, 19 March 2021 10:00 (1 hour)

Tutorial 2

Contribution ID: **14**

Type: **not specified**

Laura Covi: Particle dark matter: WIMPs, axions and ALPs

Friday, 19 March 2021 11:15 (1h 45m)

Lecture 5: Axion DM and its phenomenology

Contribution ID: 15

Type: **not specified**

Markus Ahlers: Multimessenger astronomy

Friday, 19 March 2021 15:00 (1h 45m)

Lecture 5: Multi-Messenger Astronomy

Contribution ID: **16**

Type: **not specified**

Carlo Giunti: Sterile neutrinos in physics, astrophysics, cosmology

Monday, 22 March 2021 11:15 (1h 45m)

Lecture 1: heory of Dirac and Majorana neutrino masses and mixing

Contribution ID: 17

Type: **not specified**

Chris Byrnes: Inflation and primordial black holes

Monday, 22 March 2021 15:00 (1h 45m)

Lecture 1: Motivation for inflation and the simplest models of inflation

Contribution ID: **18**

Type: **not specified**

Philippa Cole: Inflation and primordial black holes

Tuesday, 23 March 2021 10:00 (1 hour)

Tutorial 1:

Contribution ID: **19**

Type: **not specified**

Chris Byrnes: Inflation and primordial black holes

Tuesday, 23 March 2021 11:15 (1h 45m)

Lecture 2: Ultra-slow-roll inflation

Contribution ID: **20**

Type: **not specified**

Carlo Giunti: Sterile neutrinos in physics, astrophysics, cosmology

Tuesday, 23 March 2021 15:00 (1h 45m)

Lecture 2: Active-sterile neutrino oscillations

Contribution ID: **21**

Type: **not specified**

Stefano Gariazzo: Sterile neutrinos in physics, astrophysics, cosmology

Wednesday, 24 March 2021 10:00 (1 hour)

Tutorial 1

Contribution ID: 22

Type: **not specified**

Carlo Giunti: Sterile neutrinos in physics, astrophysics, cosmology

Wednesday, 24 March 2021 11:15 (1h 45m)

Lecture 3: Sterile neutrino phenomenology

Contribution ID: 23

Type: **not specified**

Chris Byrnes: Inflation and primordial black holes

Wednesday, 24 March 2021 15:00 (1h 45m)

Lecture 3: Primordial BHs: What they are and how they could form

Contribution ID: 24

Type: **not specified**

Chris Byrnes: Inflation and primordial black holes

Thursday, 25 March 2021 11:15 (1h 45m)

Lecture 4: Generating PBHs from inflation

Contribution ID: 25

Type: **not specified**

Carlo Giunti: Sterile neutrinos in physics, astrophysics, cosmology

Thursday, 25 March 2021 15:00 (1h 45m)

Lecture 4: Cosmic neutrinos

Contribution ID: 26

Type: **not specified**

Philippa Cole: Inflation and primordial black holes

Thursday, 25 March 2021 17:00 (1 hour)

Tutorial 2

Contribution ID: 27

Type: **not specified**

Stefano Gariazzo: Sterile neutrinos in physics, astrophysics, cosmology

Friday, 26 March 2021 10:00 (1 hour)

Tutorial 2

Contribution ID: **28**

Type: **not specified**

Carlo Giunti: Sterile neutrinos in physics, astrophysics, cosmology

Friday, 26 March 2021 11:15 (1h 45m)

Lecture 5: Sterile neutrinos in cosmology

Contribution ID: 29

Type: **not specified**

Chris Byrnes: Inflation and primordial black holes

Friday, 26 March 2021 15:00 (1h 45m)

Lecture 5: Constraints and hints/future signatures for PBHs