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## 17.1 Social events

08.25 - 08.30	Welcome	0 h 0 min
19.00 - 20.30	Culture event and talk by Katerina Karkala in the Church of OAC	1 h 30 min
21.00 - 22.00	Talk history of Crete in the veranda by Emanuela Larentzakis	1 h 0 min

#### 17.2 Lectures

08.30 - 09.10 35+5 min.	Convenor INSERT CHAIRMEN David Edward Bruschi (University of York) Elements and applications of Relativistic Quantum Information
09.10 - 09.50 35+5 min.	Gordon Semenoff (University of York) Infrared Quantum Information
09.50 - 10.30 35+5 min.	Dmitry Gorbunov (INR of RAS)  Gravity Wave signatures of Electroweak Phase Transition in Split  NMSSM
10.30 - 11.00	Coffee 30 min
11.00 - 11.40 35+5 min.	Nikos Mavromatos (University of London (GB)) Self-Interacting Dark Matter, Right-Handed Neutrinos and Small-Scale Cosmology "Crisis"
11.40 - 12.20 35+5 min.	Atlas (University of London (GB)) Collider searches for DM (ATLAS+CMS)
13.00 - 14.30	Lunch 1 h 30 min
13.00 - 14.30 14.30 - 15.10 35+5 min.	Lunch  1 h 30 min  Vladimir Zelevinsky (Michigan State University)  Chaotic Quantum Many-Body Systems and Philosophy of Thermalization
14.30 - 15.10	Vladimir Zelevinsky (Michigan State University)
14.30 - 15.10 35+5 min. 15.10 - 15.50	Vladimir Zelevinsky (Michigan State University) Chaotic Quantum Many-Body Systems and Philosophy of Thermalization Boris Kopeliovich (UTFSM)
14.30 - 15.10 35+5 min. 15.10 - 15.50 35+5 min.	Vladimir Zelevinsky (Michigan State University) Chaotic Quantum Many-Body Systems and Philosophy of Thermalization Boris Kopeliovich (UTFSM) Fragmentation of highly virtual partons
14.30 - 15.10 35+5 min. 15.10 - 15.50 35+5 min. 16.00 - 16.30	Vladimir Zelevinsky (Michigan State University) Chaotic Quantum Many-Body Systems and Philosophy of Thermalization  Boris Kopeliovich (UTFSM) Fragmentation of highly virtual partons  Coffee 30 min  Laszlo Csernai (UTFSM)

## 18.1 Social events

08.15 - 08.30	Welcome from organizers	0 h 15 min
08.30 - 08.45	Welcome from the director of OAC - Dr. Zorm- pas Konstantinos	0 h 15 min
08.45 - 09.00	Welcome from Emanuela Larentzakis	0 h 15 min
09.00 - 09.45	Memorial lecture dedicated to Ludvig Faddeev	0 h 45 min
20.45 - 21.15	Concert of classical music	0 h 30 min

## 18.2 Special Session on QCD

	Convenor INSERT CH	HAIRMEN
09.00 - 09.30 25+5 min.	Willibald Plessas (University of Graz)  Pion-Dressing Effects in Nucleon and Delta Masses and For	$rm\ Factors$
09.30 - 10.00 25+5 min.	Hugo Reinhardt (72076 Tbingen")  Hamiltonian approach to QCD in Coulomb gauge	
10.00 - 10.30 25+5 min.	Mario Mitter (University of Graz)  Quark, gluon and meson correlators of unquenched QCD	
10.30 - 11.00	Coffee	30 min
13.30 - 15.00	Lunch	1 h 30 min
15.00 - 15.30 25+5 min.	Christian Schubert (UMSNH) Form factor decompositions of the QCD four-gluon vertex	
15.30 - 16.00 25+5 min.	James Edwards (Universidad Michoacana de San Nicols de Worldline colour fields and non-Abelian quantum field theor	0 /
16.00 - 16.30	Coffee	30 min
16.30 - 17.00 25+5 min.	Leonid Glozman (University of Graz) $SU(2N_F)$ symmetry of confinement in QCD and its observe $T$	ation at high
17.00 - 17.30 25+5 min.	Thierry Grandou ("UMR-CNRS-7010)  Effective locality and non-abelian gauge-invariance	
17.30 - 18.00 25+5 min.	Ryo Yoshiike (Kyoto university)  Non-linear effect of the fluctuation for the inhomogeneous transition	chiral phase
20.30 - 21.30	Dinner	1 h 00 min

#### 18.3 W. Greiner Memorial Session

10.30 - 11.00	Convenor INSERT Coffee	CHAIRMEN 30 min
11.00 - 11.30 25+5 min.	Dirk Rischke (University Frankfurt)  Anisotropic dissipative fluid dynamics	
11.30 - 12.00 25+5 min.	Carsten Greiner (University of Frankfurt) Comparison of hydrodynamical and transport theoretical p+A and $A+A$ collisions	calculations for
12.00 - 12.30 25+5 min.	Gottfried Mnzenberg (GSI Darmstadt) Super Heavy Elements - experimental developments	
12.30 - 13.00 25+5 min.	Igor Mishustin ("Frankfurt Institute for Advanced Studing Greiner and exotic matter"	ies)
13.00 - 13.30 25+5 min.	Mikhail Itkis (joint institute for nuclear research)  Experimental investigation of fusion-fission mechanisms nuclei	s for superheavy
13.30 - 15.00	Lunch	1 h 30 min
16.00 - 16.30	Coffee	30 min
20.30 - 21.30	Dinner	1 h 00 min

## 18.4 Mini-workshop on Highly Ionising Avatars of New Physics

09.00 - 09.30 25+5 min.	Convenor INSERT CHAIRMEN Wim De Boer (KIT - Karlsruhe Institute of Technology (DE)) Perspectives on Detection of supersymmetric Dark Matter
09.30 - 10.00 25+5 min.	Yongmin Cho (Konkuk University) Cosmic Electroweak Monopole
10.00 - 10.30 25+5 min.	John Ellis (University of Graz)  LHC Constraint on Light-by-light Scattering, Born-Infeld theory and the mass of an Electroweak Monopole
10.30 - 11.00	Coffee 30 min
11.00 - 11.30 25+5 min.	Sarben Sarkar (King's College London)  Magnetic Monopoles from Global Monopoles in the presence of a Kalb-Ramond Field
11.30 - 12.00 25+5 min.	Laura Patrizii ("Universita e INFN) Status of the searches for Magnetic Monopoles
12.00 - 12.30 25+5 min.	Frederik Lauber (IceCube)  Magnetic monopole searches with IceCube
12.30 - 13.00 25+5 min.	Adrian Bevan (Queen Mary University of London (GB)) Searching for monopoles in polar ice samples
13.00 - 13.30 25+5 min.	Oliver Gould (Imperial College London)  Magnetic monopole production in heavy ion collisions
13.30 - 15.00	Lunch 1 h 30 min
15.00 - 15.30 25+5 min.	James Pinfold (University of Alberta (CA)) The MoEDAL Experiment Past, Present and Future.
15.30 - 16.00 25+5 min.	Richard Soluk (University of Alberta (CA)) The MoEDAL Detector at the LHC
16.00 - 16.30	Coffee 30 min
16.30 - 17.00 25+5 min.	Igor Ostrovskiy (University of Graz)  Searching for magnetic monopoles with Solid State Breakdown Counters:  from LHC to Space

17.00 - 17.30 25+5 min.	Jonathan Hays (University of London (GB))  Machine LEarning, Monopoles and MoEDAL	
17.30 - 18.00 25+5 min.	Daniela Bauer (Imperial College (GB))  Distributed Computing for Small Collaborations	
18.10 - 18.40 25+5 min.	Arka Santra (Univ. of Valencia and CSIC (ES))  Magnetic monopole production in photon fusion process.	
18.40 - 19.10	Vasiliki Mitsou, Oscar Manuel Vives Garcia, Kazuki Saku Ruiz De Austri (Univ. of Valencia and CSIC (ES))	rai, Roberto
25+5 min.	Long-lived charged supersymmetric particles and MoEDAL	
20.30 - 21.30	Dinner	1 h 00 min

#### 19.1 Social events

19.00 - 20.30 **Culture event** 0 h 30 min

#### 19.2 Parallel session

10.30 - 11.00	Convenor INSERT CHAIRMEN 30 min
13.30 - 15.00	Lunch 1 h 30 min
15.00 - 15.30 25+5 min.	Atlas (Joint Institute for Nuclear Research (RU)) Electron and Photon ID
15.00 - 15.30 25+5 min.	Viktor Riabov (Petersburg Nuclear Physics Institut (RU)) Resonance production in Pb-Pb collisions measured with the ALICE experiments at the LHC
15.30 - 16.00 25+5 min.	Cristina Bedda (Utrecht University (NL)) Measurements of D-meson production in p-Pb and Pb-Pb collisions with the ALICE detector at the LHC
15.30 - 16.00 25+5 min.	Samuel Louis Bein (Hamburg University (DE)) CMS Search for new physics in events with jets, b-tagged jets, and large missing transverse momentum in the all-hadronic channel at $s=13~{\rm TeV}$
16.00 - 16.30	Coffee 30 min
16.00 - 16.30 16.30 - 16.50 15+5 min.	Coffee 30 min  Atlas (National and Kapodistrian University of Athens (GR))  Inclusive searches for squarks and gluinos with the ATLAS detector
16.30 - 16.50	Atlas (National and Kapodistrian University of Athens (GR))
16.30 - 16.50 15+5 min. 16.30 - 17.00	Atlas (National and Kapodistrian University of Athens (GR)) Inclusive searches for squarks and gluinos with the ATLAS detector  Maria Vasileiou (National and Kapodistrian University of Athens (GR)) Transverse momentum spectra and nuclear modification factors of identified charged hadrons in p-Pb and Pb-Pb collisions at sNN = 5.02 TeV
16.30 - 16.50 15+5 min. 16.30 - 17.00 25+5 min.	Atlas (National and Kapodistrian University of Athens (GR)) Inclusive searches for squarks and gluinos with the ATLAS detector  Maria Vasileiou (National and Kapodistrian University of Athens (GR)) Transverse momentum spectra and nuclear modification factors of identified charged hadrons in p-Pb and Pb-Pb collisions at sNN = 5.02 TeV with ALICE  Athina Kourkoumeli-charalambidi ("Institute of Modern Physics) Searches for electroweak production of supersymmetric gauginos and slep-

17.15 - 17.45 25+5 min.	Sergey Polikarpov (National Research Nuclear University Recent CMS B physics results	MEPhI (RU))
17.30 - 18.00 25+5 min.	Evgeni Kolomeitsev (Matej Bel University) Fluctuations in non-ideal pion gas with dynamically fixed p	particle number
20.30 - 21.30	Dinner	1 h 00 min

## 19.3 Special session on Astro-Cosmo-Gravity

10.30 - 11.00	Convenor INSE Coffee	CRT CHAIRMEN 30 min
13.30 - 15.00	Lunch	1 h 30 min
15.00 - 15.30 25+5 min.	Violetta Sagun (CENTRA/BITP)  Neutron stars equation of state consistent with physics data	high-energy nuclear
16.00 - 16.30	Coffee	30 min
16.30 - 17.00 25+5 min.	Alexandros Gezerlis ("Institute of Modern Physics)  Strongly interacting matter in neutron stars	
20.30 - 21.30	Dinner	1 h 00 min

## 19.4 B Heavy Ion Physics Session

10.30 - 11.00	Convenor INSERT (	CHAIRMEN 30 min
13.30 - 15.00	Lunch	1 h 30 min
16.00 - 16.30	Coffee	30 min
18.00 - 18.30 25+5 min.	Sergei Voloshin (Wayne State University (US)) Vorticity and global polarization in heavy ion collisions	
20.30 - 21.30	Dinner	1 h 00 min

# 19.5 Mini-Workshop on Latest Results and New Physics in the Higgs Sector

08.30 - 08.55 20+5 min.	Convenor INSERT CHAIRMEN Maxime Gouzevitch (Universite Claude Bernard-Lyon I (FR)) Introduction to the Mini-Workshop on Latest Results and New Physics in the Higgs Sector
08.55 - 09.25 25+5 min.	Atlas (Universite Claude Bernard-Lyon I (FR)) BEH overview (ATLAS)
09.30 - 10.00 25+5 min.	Anna Kropivnitskaya (The University of Kansas (US))  Higgs parameters measurement with CMS data
10.00 - 10.30 25+5 min.	Atlas ("ITP) Measurement of cross sections and couplings of the Higgs Boson in fermionic production and decay modes with the ATLAS detector
10.30 - 11.00	Coffee 30 min
11.00 - 11.30 25+5 min.	Valeria Botta (Deutsches Elektronen-Synchrotron (DE)) Measurements of the Higgs $H(125)$ boson at CMS
11.30 - 11.55 20+5 min.	Asma Hadef, Asma Hadef (Joint Institute for Nuclear Research) ttH Coupling Measurement with the ATLAS Detector at the LHC
11.55 - 12.25 25+5 min.	Oleg Lebedev (University of Helsinki) The Higgs and cosmology
12.25 - 12.55 25+5 min.	Junquan Tao ("Institute of High Energy Physics) Search for rare and exotic Higgs Boson decay modes at CMS
12.55 - 13.25 25+5 min.	Atlas (Joint Institute for Nuclear Research (RU)) Search for rare and exotic Higgs Boson decay modes and Higgs boson pair production with the ATLAS detector
13.30 - 15.00	Lunch 1 h 30 min
15.00 - 15.30 25+5 min.	Pier Paolo Giardino (Brookhaven National Laboratory) Single Higgs production at LHC as a probe for anomalous Higgs self coupling
15.30 - 16.00 25+5 min.	Konstantin Androsov (INFN Pisa (IT)) Search for new physics in HH final state in CMS

16.00 - 16.30	Coffee	30 min
16.30 - 17.00 25+5 min.	Atlas (National and Kapodistrian University of Athens (GR Search for neutral and charged BSM Higgs Bosons with the tector	, ,
17.00 - 17.30 25+5 min.	Luca Panizzi (INFN Genova (Italy))  Phenomenological scenarios to fit a possible excess in the di-channel	nuon + jets
17.30 - 18.00 25+5 min.	Luigi Marchese (University of Oxford (GB)) Measurement of $Z \to b\bar{b}$ cross section and search for Higgs-produced in association with b quarks at CDF	like particle
18.00 - 18.30 25+5 min.	Justin Andrew Williams (The University of Kansas (US)) Search for Anomalous Quartic Photon Coupling at the LHC	
20.30 - 21.30	Dinner	1 h 00 min

## 20.1 Social events

06.00 - 17.00	Excursion 1	11 h 0 min
06.00 - 17.00	Excursion 2	11 h 0 min
10.30 - 17.00	Excursion 3	6 h 30 min

#### 21.1 Social events

20.00 - 21.00	Buffet and wine tasting	1 h 0 min
21.00 - 22.00	Concert	1 h 0 min

#### 21.2 Poster session

10.30 - 11.00	Convenor INSERT CHAIRMEN 30 min
13.30 - 15.00	Lunch 1 h 30 min
16.00 - 16.30	Coffee 30 min
20.00 - 20.30 25+5 min.	Andre Sopczak (Czech Technical University (CZ)) ttH Coupling Measurement with the ATLAS Detector at the LHC
20.00 - 21.00 55+5 min.	Frederic Lassiaille (FL research) Surrounding matter theory
20.00 - 21.00 55+5 min.	Hexi Shi (Frascati (RM) Italy") Search for the violation of Pauli principle at LNGS - first physics result of VIP2 experiment
20.00 - 21.00 55+5 min.	Wim De Boer (KIT - Karlsruhe Institute of Technology (DE)) Molecular Clouds as the Origin of the Gamma-Ray GeV excess
20.00 - 21.00 55+5 min.	Marjan Abbasipour (Iran University of Science and Technology)  Modification of Material Surface by Plasma
20.00 - 21.00 55+5 min.	Igor Bulyzhenkov (Moscow Institute of Physics and Technology) Gravity until equipartition of relativistic kinetic energies.
20.00 - 21.00 55+5 min.	Timur Kamalov (Moscow Institute of Physics and Technology)  Quantum Correction for Newtons Law of Motion
20.00 - 21.00 55+5 min.	Chhanda Samanta (Virginia Military Institute) A-dependence of $\Lambda\Lambda$ -bond and charge symmetry energies
20.00 - 21.00 55+5 min.	Shihan Sajeed (University of waterloo) Insecurity of detector-device-independent quantum key distribution
20.00 - 21.00 55+5 min.	Luigi Marchese, Luigi Marchese (University of waterloo) muon performance
20.00 - 21.00 55+5 min.	Alessandro Romito (Lancaster University) Thermodynamics along individual trajectories of a quantum bit

20.00 - 21.00 55+5 min.	Jorge Bernal Arroyo (Lancaster University) New Mathematical Formulation of the Correspondence Principle
20.00 - 21.00 55+5 min.	Gopinath Kamath (Indian Institute of Technology Tirupati) Cylindrical symmetry: II. The Greens function in $3+1$ dimensional curved space
20.00 - 21.00 55+5 min.	Luis Gonzalez-mestres (John Naisbitt University) New particles and nonstandard new Physics
20.00 - 21.00 55+5 min.	Valerio Mascagna ( Sezione di Pavia) Experimental technique for $\bar{p}$ -nucleus annihilation cross section measurements at low energy
20.00 - 21.00 55+5 min.	Luca Venturelli (Sezione di Pavia)  Antiproton-nucleus annihilation cross section at low energy
20.00 - 21.00 55+5 min.	Christian Farnese ("INFN)  The new front end and DAQ of the ICARUS detector
20.00 - 21.00 55+5 min.	Ryan Parker (University of York)  Hybrid Photonic Loss Resilient Entanglement Swapping
20.00 - 21.00	Virendrasinh H. Kher, Nayneshkumar Devlani, Ajay Kumar Rai (University of York)
55+5 min.	Radiative transitions and the mixing parameters of the D meson
20.00 - 21.00 55+5 min.	Zalak Marfatia, Ajay Kumar Rai (University of York)  Heavy baryon spectroscopy in Hypercentral constituent quark model
20.00 - 21.00 55+5 min.	Adam Balcerzak (University of Szczecin) Varying constants quantum cosmologies
20.00 - 21.00 55+5 min.	Yifan Cheng ("Academia Sinica) Possible Approach to Dynamical Supersymmetry Breaking via Nambu– Jona-Lasinio Model
20.00 - 21.00	Georgios Karathanasis (National and Kapodistrian University of Athens (GR))
55+5 min.	The new CMS Barrel Muon Track Finder
20.00 - 21.00	Alexander Joan Cristo Jurez-domnguez (Benemrita Universidad Autnoma de Puebla)
55+5 min.	Quantization Aspects of a Hypercomplex Field
20.00 - 21.00	Swagata Mukherjee (Rheinisch-Westfaelische Tech. Hoch. (DE))

55+5 min.	Search for R-parity violating supersymmetry and Quantum black-holes in $e+mu$ final state in CMS
20.00 - 21.00 55+5 min.	mer Bayraktar (Max Planck Institute for the Science of Light) Experimental Relativistic Quantum Information with a Geostationary Satellite
20.00 - 21.00 55+5 min.	Andrea Lavagno ("Politecnico di Torino) Nuclear phase transition and thermodynamic instabilities in dense nu- clear matter
20.00 - 21.00 55+5 min.	Mohammad M. Qaemmaqami (Institute for Research in Fundamental Sciences (IPM)) On the Butterfly Effect in 3D Gravity
20.00 - 21.00 55+5 min.	Anna Stakia (CERN) Search for supersymmetry in events with one lepton, multiple jets and missing transverse momentum in proton-proton collisions at $s=13~{\rm TeV}$
20.00 - 21.00 55+5 min.	Anna Stakia (CERN)  Jet-flavour tagging using deep-learning in the CMS experiment
20.00 - 21.00 55+5 min.	Ralf Seidl (RIKEN) Latest results on azimuthal anisotropy at RHIC-PHENIX
20.30 - 21.00 25+5 min.	Elisaveta Zherebtsova (National Research Nuclei University MEPhI) Procedure for event characterization in Pb-Pb collisions at 40AGeV in the NA49 experiment at CERN SPS
20.40 - 21.00 15+5 min.	Laszlo Csernai (National Research Nuclei University MEPhI) Applications of Advances in Relativistic Fluid Dynamics to Laser Fusion
20.40 - 21.00 15+5 min.	Cristiano Sebastiani ("Sapienza Universita e INFN) Search for displaced lepton jets with the ATLAS experiment
20.40 - 21.00 15+5 min.	Oleksii Ivanytskyi (BITP) On bimodal size distribution of spin clusters in the one-dimensional Ising model

## 21.3 A Particle Physics

08.30 - 09.00 25+5 min.	Convenor INSERT CHAIRMEN John Ellis (The University of Kansas (US)) What Physics Beyond the Standard Model?
09.00 - 09.30 25+5 min.	Malgorzata Kazana (NCBJ Warsaw (PL)) CMS Overview
09.30 - 10.00 25+5 min.	Atlas (NCBJ Warsaw (PL)) ATLAS overview highlight talk
10.00 - 10.30 25+5 min.	Yasmine Sarah Amhis (NCBJ Warsaw (PL)) LHCb overview
10.30 - 11.00	Coffee 30 min
11.00 - 11.30 25+5 min.	Vladimir Gligorov (Centre National de la Recherche Scientifique (FR)) Flavourful roads to New Physics
11.30 - 12.00 25+5 min.	Rainer Mankel (Deutsches Elektronen-Synchrotron (DE)) $ATLAS$ and $CMS$ prospects for Higgs measurements and searches at the high luminosity $LHC$
12.00 - 12.30 25+5 min.	Marek Karliner (Tel Aviv University (IL)) Prediction and discovery of doubly-heavy baryon
13.30 - 15.00	Lunch 1 h 30 min
16.00 - 16.30	Coffee 30 min

## 21.4 C Quantum Optics and Quantum Information

10.30 - 11.00	Coffee	Convenor INSERT CHAIRMEN 30 min
13.30 - 15.00	Lunch	1 h 30 min
16.00 - 16.30	Coffee	30 min
18.00 - 18.50 45+5 min.	Avshalom Elitzur (Iyar) Would Nega-Particles Prove to ality?	be Essential Ingredients of Quantum Re-

## 21.5 Workshop on continuous variables and quantum information

10.30 - 11.00	Convenor INSERT Coffee	CHAIRMEN 30 min
10.00 11.00		90 IIIII
13.00 - 13.30	Silvio Donato (Universitaet Zuerich (CH))	
25+5 min.	Overview talk on trigger performances (CMS)	
13.30 - 15.00	Lunch	1 h 30 min
15.00 - 15.50	Nicolas Berger (LAPP Annecy (CNRS/IN2P3))	
45+5 min.	Lecture on Statistical analysis methods by ATLAS	
16.00 - 16.30	Coffee	30 min
16.30 - 17.00	Thomas Josua Mettler (Universitaet Bern (CH))	
25+5 min.	The Short Baseline Neutrino Detector at Fermilab	
17.00 - 17.30	Antonio Sbrizzi ("Universita e INFN)	
25+5 min.	The LUCID-2 detector	
17.30 - 18.00	Murat Ali Guler (University of St Andrews)	
25+5 min.	Directional dark matter search with nuclear emulsion	

## 21.6 Workshop on Exotic Hadrons

10.30 - 11.00	Convenor INSERT CHAIRMEN 30 min
11.00 - 11.30 25+5 min.	Maria Chekhova (Max-Planck Institute for the Science of Light) Phase supersensitivity in an unbalanced $SU(1,1)$ interferometer
11.30 - 12.00 25+5 min.	U L Andersen (Max-Planck Institute for the Science of Light) Squeezed light enhanced sensing of a micro-mechanical oscillator
12.00 - 12.30 25+5 min.	Radim Filip (Palacky University in Olomouc)  Highly nonlinear quantum optics and optomechanics
12.30 - 13.00 25+5 min.	Christian Ralf Mller (Tel Aviv University (IL)) From Quantum-Limited Measurements towards Quantum Squeezing Detection over Satellite Links
13.30 - 15.00	Lunch 1 h 30 min
15.00 - 15.20 15+5 min.	Vladimir Shevchenko (University of Glasgow) Quantum measurements in finite space-time domain
15.20 - 15.40 15+5 min.	Aurelian Isar ("National Institute of Physics and Nuclear Engineering)  Dynamics of quantum correlations in two-mode Gaussian open quantum systems
15.40 - 16.00 15+5 min.	Mihaescu Tatiana (KVI-CART/University of Groningen) Gaussian quantum steering of two bosonic modes in a squeezed thermal environment
16.00 - 16.30	Coffee 30 min
16.30 - 17.00 25+5 min.	Ladislav Mista (Palacky University) Gaussian intrinsic entanglement
17.00 - 17.30 25+5 min.	Petros Wallden (University of Edinburgh) Relativistic and Device Independent Verifiable Quantum Computation
17.30 - 17.50 15+5 min.	Matthew Thornton (University of St Andrews) Gigahertz quantum signatures compatible with telecommunication technologies

17.50 - 18.10 Tom Douce (Universit Pierre et Marie Curie)
15+5 min. Quantum advantage and fault tolerant universal quantum computing in continuous variables

## 21.7 Workshop on Future of Fundamental Physics

10.30 - 11.00	Convenor INSERT CHAIRMEN 30 min
13.30 - 15.00	Lunch 1 h 30 min
15.00 - 15.30 25+5 min.	Dominik Werthmller (University of Glasgow)  Exotic Baryons at MAMI
15.30 - 16.00 25+5 min.	Johan Messchendorp (KVI-CART/University of Groningen) Prospects for Exotic Hadron Spectroscopy at PANDA
16.00 - 16.30	Coffee 30 min
16.30 - 17.10 35+5 min.	Jianbin Jiao (Shandong University) light exotic hadrons at BESIII
17.10 - 17.40 25+5 min.	Hideko Nagahiro (Nara Women's University) Structure of excited charmed baryons studied by pion emission decays
17.40 - 18.00 15+5 min.	Atsushi Hosaka (Osaka University)  Heavy hadron production for the study of their structure
18.00 - 18.40 35+5 min.	H. Noumi (Universit Pierre et Marie Curie) Strange and Charm Baryon Spectroscopy at J-PARC
18.40 - 19.00 15+5 min.	Milena Piotrowska (Jan Kochanowski University) Excited vector mesons: phenomenology and predictions for a yet unknown vector $\bar{s}s$ state with a mass of about 1.93 GeV

# 21.8 Mini-workshop:Correlations and Fluctuations in Relativistic Heavy Ion Collisions

10.30 - 11.00	Convenor INSERT CHAIRM Coffee 30	IEN min
13.30 - 15.00	Lunch 1 h 30	min
15.00 - 15.30 25+5 min.	Vladimir Zelevinsky (Michigan State University) Introduction	
15.30 - 16.00 25+5 min.	Peter Ring (Technical University Munich)  Covariant density functionals in nuclear physics and their microscorigin.	copic
16.00 - 16.30	Coffee 30	min
16.30 - 17.00 25+5 min.	Michael Urin (Universitaet Bern (CH))  DAMPING OF SIMPLE MODES OF HIGH-ENERGY NUCLEAR CITATIONS	EX-
17.00 - 17.30 25+5 min.	Elena Litvinova (Western Michigan University) Isospin dynamics in nuclear structure	
17.30 - 18.00 25+5 min.	Oleg Sushkov (University of New South Wales) Bose condensation of triplons in quantum magnets	

#### 22.1 Social events

19.00 - 19.30 Concert of classical music

 $0~\mathrm{h}~30~\mathrm{min}$ 

## 22.2 Session on Physics Education and Outreach

10.30 - 11.00	Convenor INSERT Coffee	CHAIRMEN 30 min
13.40 - 15.00	Lunch	1 h 20 min
15.00 - 15.25 20+5 min.	Mina Katramatou (Kent State University)  Active Learning Teaching for Introductory Physics	
15.25 - 15.50 20+5 min.	Gerassimos Petratos (Kent State University) Trends in Undergraduate Physics Education in the US	
16.00 - 16.30	Coffee	30 min
16.30 - 16.55 20+5 min.	Georgios Fanourakis (Nat. Cent. for Sci. Res. Demokrit The European Researchers' Night: concepts and impact	tos (GR))
16.55 - 17.20 20+5 min.	Helen Gourlay (Brunel University)  Learning about A Level Physics students understand physics using concept mapping	ings of particle
17.20 - 17.45 20+5 min.	Antonios Leisos (Aristotle University of Thessalonki (Gine The Hellenic Open University Cosmic Ray Telescope: Resultational Activities	//
17.45 - 18.10 20+5 min.	Lazaros Merakos (Greek Universities Network)  Opening up Greek Universities: opencourses.gr	
20.30 - 21.30	Dinner	1 h 00 min

#### 22.3 Public talk

10.30 - 11.00	Convenor INSERT C Coffee	HAIRMEN 30 min
13.40 - 15.00	Lunch	1 h 20 min
16.00 - 16.30	Coffee	30 min
19.30 - 20.30 55+5 min.	John Ellis ("INFN) What are we? Where do we come from? Where are we go	ng?
20.30 - 21.30	Dinner	1 h 00 min

## 23.1 Workshop on Quantum Foundations and Quantum Information

10.30 - 11.00	Convenor INSERT	T CHAIRMEN 30 min
13.30 - 14.45	Lunch	1 h 15 min
14.45 - 15.00 10+5 min.	(University of Bonn (DE)) Opening words	
15.00 - 15.30 25+5 min.	Alessandro Romito (Lancaster University) Ubiquitous non-local entanglement with Majorana boun	$d\ states$
15.30 - 16.00 25+5 min.	Yutaka Shikano (The University of Tokyo)  Quantum Dynamical Simulation by Quantum Walk	
16.00 - 16.00	Coffee	00 min
16.30 - 17.00 25+5 min.	Lajos Diosi (Wigner Research Centre for Physics)  Pure state post-selection is universal	
17.00 - 17.30 25+5 min.	Angelo Bassi (Department of Physics - University of The Wave function collaspe and gravity	rieste)
17.30 - 18.00 25+5 min.	Ron Folman (Ben-Gurion University of the Negev)  Matter waves exposed to the external world: Decoherent plementarity and time irreversibility	ace, gravity, com-
18.00 - 18.30 25+5 min.	Andrea Alberti (University of Bonn)  Testing the superposition principle with individual trapp	$ped\ atoms$
20.30 - 23.30	Dinner	3 h 00 min

## 23.2 Joint Quantum Session

10.30 - 11.00	Convenor INSERT CHA	AIRMEN 30 min
11.00 - 11.30 25+5 min.	Lorenzo Maccone (Instituto de Fsica Corpuscular)  Quantum time mechanism, towards quantum spacetime	
11.30 - 12.00 25+5 min.	Ralf Schuetzhold (University Duisburg-Essen) Fundamental quantum effects in the laboratory?	
12.00 - 12.30 25+5 min.	Yuval Gefen (University of Science and Technology of China) Manifestation and Detection of Discord in Nanostructures	
13.30 - 14.45	Lunch	1 h 15 min
16.00 - 16.00	Coffee	00 min
20.30 - 23.30	Dinner	3 h 00 min

#### 24.1 Social events

21.30 - 22.30 **Opera gala** 

 $1\ h\ 0\ min$ 

## 24.2 D Astroparticle, Cosmology,d Gravity, Math Phys

10.30 - 11.00	Convenor I	INSERT CHAIRMEN 30 min
13.00 - 13.30 25+5 min.	Mario Buscemi ("Universit di Catania) The Pierre Auger Observatory: latest results a	$nd\ future\ perspectives$
13.30 - 15.00	Lunch	1 h 30 min
16.00 - 16.30	Coffee	30 min
20.30 - 21.30	Dinner	1 h 00 min

#### 24.3 H. Oeschler Memorial Session

10.30 - 11.00	Convenor INSERT	Γ CHAIRMEN 30 min
13.30 - 15.00	Lunch	1 h 30 min
15.00 - 15.30 25+5 min.	Jean Cleymans (University of Cape Town (ZA)) Helmut Oeschler and Particle Chemistry in Heavy Ion	Collisions
15.30 - 16.00 25+5 min.	Krzysztof Redlich (University of Wroclaw (PL))  Linking the particle yields data in HIC and lattice QCI	D results
16.00 - 16.30	Coffee	30 min
16.30 - 17.00 25+5 min.	Unknown Unknown (University of Wroclaw (PL)) Probing resonance matter with HADES	
20.30 - 21.30	Dinner	1 h 00 min

## 24.4 Workshop on Physics at FAIR-NICA-SPS-BES/RHIC

	Convenor INSERT CH	AIRMEN
09.30 - 10.00 25+5 min.	Yu. B. Ivanov (RIKEN) Three-fluid Hydrodynamics-based Event Simulator Extended final State interactions (THESEUS) for FAIR-NICA-SPS- energies	
10.00 - 10.30 25+5 min.	Hanna Zbroszczyk (Warsaw University Of Technology) Two-particle correlations using THERMINATOR model for gram	BES pro-
10.30 - 11.00	Coffee	30 min
11.00 - 11.30 25+5 min.	Kyrill Bugaev ("Bogolyubov Institute for Theoretical Physics Probing the tricritical endpoint of QCD phase diagram at N energies	,
11.30 - 12.00 25+5 min.	Oleksii Ivanytskyi (BITP) Separate freeze-out of strange particles and the quark-hadron sition	phase tran-
12.00 - 12.30 25+5 min.	Antoni Marcinek (Polish Academy of Sciences (PL)) New Baryonic and Mesonic Observables from NA61/SHINE	
13.30 - 15.00	Lunch	1 h 30 min
15.00 - 15.30 25+5 min.	Andrej Kugler ("Nuclear Physics Institute) Flow at SIS energies - overview of SIS18 results and prospect	for SIS100
15.30 - 16.00 25+5 min.	Chi Yang (Shandong University) The STAR detector upgrade and future plan	
16.00 - 16.30	Coffee	30 min
20.30 - 21.30	Dinner	1 h 00 min

## 24.5 Workshop on NCG

	Convenor INSERT CHAIRMEN	
08.30 - 09.10 35+5 min.	Latham Boyle (Perimeter Institute) What is the standard model of particle physics trying to tell us?	
09.10 - 09.50 35+5 min.	Nadir Bizi (UPMC (Paris VI)) A Noncommutative Geometry inspired GUT	
09.50 - 10.30 35+5 min.	Shane Farnsworth (Max-Planck Institute for Gravitational Physics)  Applications of non-associative geometry in particle physics	
10.30 - 11.00	Coffee 30 min	
11.00 - 11.40 35+5 min.	Koen Van Den Dungen (SISSA) Families of spectral triples and foliations of spacetime	
11.40 - 12.20 35+5 min.	Tomasz Miller (Warsaw University of Technology) Causal relations in noncommutative spacetime	
12.20 - 13.00 35+5 min.	Nicolas Franco (University of Namur) Physical models from noncommutative causality	
13.30 - 15.00	<b>Lunch</b> 1 h 30 min	
15.00 - 15.40 35+5 min.	Anna Pachol (Queen Mary University of London) Introduction to noncommutative digital geometry	
16.00 - 16.30	Coffee 30 min	
16.30 - 17.10 35+5 min.	Christopher Fritz (Sussex University) Noncommutative Spherically Summetric Spacetimes at Semicalssical Order	
20.30 - 21.30	Dinner 1 h 00 min	

## 25.1 Social events

16.00 - 20.30	Excursion in Chania	4 h 30 min
20.30 - 21.00	Concert of classical music in Great Arsenal of Chania	0 h 30 min
21.45 - 23.30	Excursion 4	1 h 45 min

## 25.2 Special Session on Instruments and Methods in HEP

	Convenor INSERT CHA	IRMEN
10.30 - 11.00	Coffee	30 min
11.00 - 11.30 25+5 min.	You Zhou (University of Copenhagen (DK))  Correlations of anisotropic flow in relativistic heavy-ion collisi  LHC	ions at the
11.30 - 12.00 25+5 min.	Grigory Nigmatkulov (National Research Nuclear University National Research Research Research Strain and Research Resear	,
12.00 - 12.30 25+5 min.	Ewa Maksymiuk (Jan Kochanowski University)  Equations of anisotropic hydrodynamics for quark and gluon for	luids
13.30 - 14.30	Lunch 1	h 00 min
15.35 - 16.00	Coffee	$25 \min$

## 26.1 Social events

18.00 - 20.30	Cultural event with Classical Music	2 h 30 min
21.30 - 22.30	Concert of classical music	1 h 0 min

#### 27.1 Social events

09.00 - 16.00 **Excursion 5** 5 h 0 min

#### 28.1 Social events

21.30 - 22.30 **Concert** 1 h 0 min

## 28.2 S. Belyaev Memorial Session

	Convenor INSERT C	HAIRMEN
08.30 - 09.15	John William Womersley (IFIN-HH)	
40+5  min.	The challenges of large infrastructure physics projects in the	e 21st century
09.15 - 09.55	Jie Gao ("Institute of High Energy Physics)	
35+5  min.	The CEPC/SppC project: status and challenges	
00   0 111111	The ell of appear course and chambergee	
09.55 - 10.30	Davide Gamba (CERN)	
30+5 min.	Status and plans of the Compact Linear Collider project	
10.00 11.00		
10.30 - 11.00	Coffee	30 min
11.00 - 11.35	Erik Adli (University of Oslo (NO))	
30+5 min.	AWAKE: the proton-driven plasma wakefield accelerator	experiment at
	CERN	
11.05 10.10	No. 1. A. 11. (TAYDAY I. I. 1. A. 1.	(IT))
11.35 - 12.10	Mario Antonelli (INFN e Laboratori Nazionali di Frascati (IT))	
30+5 min.	Low emittance muon beam for multi-TeV muon collider	
13.30 - 15.00	Lunch	1 h 30 min
15.00 - 15.30	Amarjit Soni (BNL)	
25+5 min.	Advances in Direct CP violation	
15.30 - 16.00	Giulia Ricciardi (Univ. Napoli Federico II)	
25+5  min.	Tensions in the flavour sector	
	···· <b>,</b> ···· ·	
16.00 - 16.30	Coffee	$30 \min$
20.20 21.20	Dinner	1 h 00 m;
20.30 - 21.30	Dinner	1 h 00 min

## 28.3 Workshop on (Super)gravity, String theory and Related Topics

10.00 11.00	Convenor INSERT CI	
10.30 - 11.00	Coffee	30 min
11.00 - 11.10	Augusto Sagnotti (Scuola Normale Superiore and INFN-Sez (IT))	zione di Pisa
05+5 min.	Introduction	
11.10 - 11.55	Nikos Irges (National Technical University of Athens)	
40+5  min.	Non-perturbative Gauge-Higgs Unification	
11.55 - 12.40	Silvia Nagy (University of Nottingham)	
40+5  min.	Supergravity as Yang-Mills squared: from classical to quantum	$\iota m$
12.40 - 13.25	Fabio Riccioni (INFN - National Institute for Nuclear Physi	.cs)
40+5 min.	Exotic branes and non-geometric fluxes in string theory	,
13.30 - 15.00	Lunch	1 h 30 min
15.00 - 16.00	Paolo Natoli (Universit di Ferrara)	
55+5 min.	Cosmology with PLANCK: exploring the early Universe via	the CMB
16.00 - 16.30	Coffee	20 :
	Conce	$30 \min$
		30 min
17.15 - 18.00	Andrea Campoleoni (Universit Libre de Bruxelles)	30 min
17.15 - 18.00 40+5 min.		30 min
	Andrea Campoleoni (Universit Libre de Bruxelles)	30 min
40+5 min.	Andrea Campoleoni (Universit Libre de Bruxelles)  Higher spins in 3D: from AdS to flat space	30 min

## 28.4 Interdisciplinary Session

#### Convenor INSERT CHAIRMEN

17.00 - 17.30	Georgios Pavlos (Democritus University of Thrace)
25+5  min.	Complexity and unification in Physical theory

#### 29.1 Social events

18.00 - 18.30 Closing of conference

 $0~\mathrm{h}~30~\mathrm{min}$