PROCEEDINGS OF SCIENCE

Foreword to the Proceedings of the Corfu Summer Institute "School and Workshops on Elementary Particle Physics and Gravity" (CORFU2018)

Dedicated to the memory of James Stirling

These proceedings are dedicated to the memory of our friend and colleague James Stirling, who passed away on November 9th, 2018. James was an outstanding scientist and a longtime great friend and supporter of the Corfu scientific activities.

Professor Stirling was one of the star physicists of the Institute for Particle Physics Phenomenology in Durham and its inaugural director as well as the Jacksonian Professor of Natural Philosophy and Head of the Cavendish Laboratory at the University of Cambridge. He served as the first Provost of the Imperial College in London from 2013-2018. He made crucial contributions in high energy phenomenology, especially in hadronic physics and perturbative QCD, and some of his works are among the most cited of all times in the physical sciences.

The Corfu Summer Institute and the European Institute for Sciences and their Applications would like to express their gratitude for Professor's Stirling strong support during all these years, and especially during their first steps in 2003. Our thoughts are with his family and close friends to whom we would like to express our deepest condolences. Our friend and colleague Ronald Kleiss wrote a few more words about James and can be found below before the scientific contributions. Jame's memory will stay forever! with us.

1. Foreword

These are the Proceedings of the scientific activities of CORFU2018, the 18th Hellenic School and Workshops on Elementary Particle Physics and Gravity, which took place from August 31st to September 28th, 2018. The Schools and Workshops were hosted by the European Institute for Sciences and their Applications (EISA) in the conference center of the ex-Royal Palace garden of Mon Repos in Corfu, Greece. The scientific activities consisted of a series of six events, *the Workshop on the Standard Model and Beyond the Workshop Dualities and Generalized Geometries and the The Critical Point and Onset of Deconfinement Conference "CPOD 2018"* and a rich set of outreach activities (TV and radio interviews, Master Classes, series of lectures to High School teachers and talks for the public).

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We refer to the website:

http://www.physics.ntua.gr/corfu2018

for the various organizational and practical details.

It is not easy to do justice to the memory of James Stirling, both as a physicist and as a person: best to simply describe how I was privileged to meet and work with him.

Freshly arrived at CERN as a fellow, I first met James in 1984 when he approached me about giving a talk - organizing these was then among his duties. We got to talk and discovered that we shared in interest in precisely the kind of hard-core phenomenology that was very relevant at that time, when the W and Z bosons had just been discovered and their study in the context of the p-pbar collider environment was starting off. I had just started developing what was going to be called spinor helicity techniques, and we realized that they could be very useful in computing cross sections for processes involving not only weak bosons but also jets. At that time James was also collaborating with Steve Ellis - James was like that, he always knew everyone as far as I could see. The three of us thus started working on W/Z+jets, and not only that went very well but it was also extremely enjoyable, not in the last place because of the relaxed and friendly atmosphere that James had a knack of spreading around him; rarely one encounters that combination of physics prowess and personal warmth. In the course of the work James and I wrote up the spinor helicity techniques in a paper that has been widely quoted. The real test, however, came with the discovery of `monojet' events, which for a time were heralded as evidence for supersymmetry because of the large amount of missing E_t. Using our code we were able (perhaps disappointingly) to show that the rate of these events was in fact predicted by the regular standard model, and to date supersymmetry is still waiting to be discovered, if ever. As reported in the book `Nobel Dreams', James' presentation at CERN of our results, friendly and calm but incisive and decisive as well, was more or less the deathknell for monojets.

It was around the same time that we started looking into the problem of Monte Carlo phase space. The problem of generating particle momenta uniformly in phase space had been of long standing and was basically unsolved. Following up a suggestion - by James - of how it might be attacked using initially unrestricted momenta and then building in overall momentum conservation, we were able to come up with the RAMBO algorithm (the name was suggested by Steve after he had seen First Blood Part 2) which today forms a hidden core element of most Monte Carlo programs. Seldom have I been so proud of an algorithm! Fred James, CERN's CPC editor, specially rushed the publication of what he termed `an especially important paper'. If you are just starting on your career as a theorist (as I was) that feels really good, I can tell you.

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James and I also started the study of `tagging jets' to single out VV scattering at the (then future) LHC to find Higgs bosons, and worked some more on multiparticle phase space algorithms, but eventually we went our own ways and did not publish together anymore, but we kept meeting. Already at CERN James struck me as a person who was not only very easy to get along with, being friendly and courteous to absolutely everyone, but was also very organized, and able to organize around him. Small wonder that his further career sent him up the administrative ladder at Durham, then at Cambridge, then at Imperial, as its first Provost no less. Other people than me appreciated him at least as much! But I will always remember him as a quiet, friendly, soft-spoken physicist who contributed both knowledge and a warm atmosphere wherever he went. We are the less for his loss.

The Corfu Summer Institute has a very long, interesting and successful history. The Corfu Meetings started in 1982 as a Summer School on EPP mostly for Greek graduate students and since then it has developed into a leading international Summer Institute in the field of elementary particle physics (covering both experimental and theoretical advances) and more recently of gravity. In addition, it launched a very rich outreach program to teachers and school students that has been widely appreciated by the local society and scientific community over the years.

The structure of the “Summer Institute on EPP and Gravity 2018” was based on the general format developed and established and tested in all previous Corfu Meetings. This year was hosted again by the European Institute for Science and their Applications (EISA). The new Institute aims to serve as permanent extension of the Corfu Summer Institutes with the additional target to attract first class scientists that can stay for a long period and produce locally a significant research output. The scientific activities of CORFU2018 were held in the conference hall of the of the garden of Mon Repos in the town of Corfu, which is the permanent basis of EISA.

Moreover we had a very exciting development. An application of the Corfu Municipality to a related call of the central Government concerning the renovation of three old buildings in the garden of Mon Repos was approved! This means that soon the dream of having buildings in Mon Repos which will host the EISA's scientific activities participants by providing them office space and the rest infrastructure will be realised!

The first event, ***Workshop on the Standard Model and Beyond*** (took place from September August 31st to 11th, 2018). It was coorganized and supported by the: COST: Action CA15108 Connecting insights in fundamental physics (supported by the EU Framework Programme Horizon 2020), COST: Action CA16201 Unraveling new physics at the LHC through the precision frontier, National Technical University of Athens, Municipality of Corfu, ITN: Invisibles, ERC Grant: LHCtheory Theoretical Predictions and Analyses of LHC Physics: "Advancing the Precision Frontier", ERC Grant: LHCTHEORY, ERC Grant: HICCUP and the

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Institutes: Max Planck Institute for Physics, CERN, SAMPS - National Technical University of Athens, Deutsches Elektronen-Synchrotron (DESY), IPPP Durham, LAPP, IFT Madrid, Sommerfeld Center for Theoretical Physics, U. Uppsala, SISSA, LPTENS, ICTP, LAPTH, University of Warsaw, University of Granada, CFTP/IST, U. Lisboa, IFIC Valencia, Oxford University, Universidad Autonoma de Madrid, Scuola Normale Superiore, Pisa , NCSR "Demokritos", NIPNE Bucharest , T.U. München, Bern U., LPTHE-CNRS, SNS Pisa, IFIN, LPNHE-CNRS/IN2P3 Paris

The Scientific Organizers were:

F. del Aguila (Granada U.)
J.A. Aguilar Saavedra (U. Granada)
I. Antoniadis (Bern U. and LPTHE-CNRS)
R. Barbieri (SNS, Pisa)
M. B. Gavela (Autonoma U., Madrid)
N. Glover (Durham U., IPPP)
D. Ghilencea (Bucharest, IFIN-HH)
W. Hollik (MPI, Munich)
J. Kalinowski (Warsaw U.)
G. Koutsoumbas (NTU Athens)
C. Papadopoulos (NCSR Demokritos)
R. Pittau (U. Granada)
M. N. Rebelo (CFTP/IST, U. Lisboa)
A. Ringwald (DESY)
G. Rodrigo (IFIC Valencia)
S. Sarkar (Oxford U.)
E. Tsesmelis (CERN)
D. Varouchas (LPNHE-CNRS/IN2P3, Paris)
A. Weiler (T.U. München)
G. Zanderighi (CERN & Oxford U.)

The second event, ***Workshop Dualities and Generalized Geometries*** (took place from September 9th to 16th, 2018). It was coorganized and supported by the Action MP1405 Quantum structure of spacetime (QSPACE), National Technical University of Athens, Municipality of Corfu, and the Institutes: Queen Mary University of London, Rudjer Bošković Institute Zagreb, NTU Athens, LMU & Max Planck Institute for Physics, Swansea University and EISA.

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The Scientific Organizers were:

D. Berman (Queen Mary U.)
A. Chatzistavrakidis (Bošković Inst., Zagreb)
A. Kehagias (NTU Athens)
D. Lüst (LMU & Max Planck Inst., Munich)
D. Thompson (Swansea U.)

The third event, ***The Critical Point and Onset of Deconfinement Conference "CPOD 2018",*** (took place from September 24th to 28th, 2018). This conference, 12th in the series, took place on September 24-28, 2018, at Mon-Repos, Corfu Island, Greece. The European Institute for Sciences and their Applications (EISA), the National and Kapodistrian University of Athens (NKUA), the National Technical University of Athens (NTUA) and the Municipality of Corfu coorganized and supported this international event. The purpose of the CPOD conference series is to discuss theoretical and experimental progress in studies of the QCD phase diagram and the properties of strongly interacting matter.

The scientific topics covered in the conference were deconfinement and chiral symmetry restoration, critical point of strongly interacting matter, strongly interacting matter in the crossover regime, hadronization and chemical freeze-out, dynamical phenomena in QCD matter, lattice QCD matter, gravitational waves in neutron stars collisions and equation of state of strongly interacting matter, new results from SIS, SPS, RHIC and LHC, novel experimental techniques and future facilities and experiments beyond 2020.

Senior, as well as, young scientists had the opportunity to present their work and the progress in the ongoing research in the field. Worldwide leading educational institutions, research centers and major experimental facilities participated in the conference through the presented talks.

The next conference in the CPOD series will be held in Baku, Azerbaijan on 2020.

CPOD2018 was coorganized and supported by the: European Institute for Sciences and their Applications (EISA), National and Kapodistrian University of Athens (NKUA), National Technical University of Athens (NTUA) and Municipality of Corfu.

The Scientific Organizers were:

K.N. Anagnostopoulos (NTUA)
N.G. Antoniou (Co-chair, NKUA)
N. Davis (IFJ PAN, NKUA)
F.K. Diakonos (NKUA)

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A.S. Kapoyannis (NKUA)
A.D. Panagiotou (Co-chair, NKUA)
A. Tsapalis (HNA)
G. Zoupanos (NTUA)

The outcome was indeed very impressive, given that the six sessions gathered 373 participants. More impressive is the number of young scientists that were attracted: 144 in total. Another impressive fact is the number of fellowships distributed to the young participants: 110 in total! covering partial their local expenses.

In short internationally leading scientists have been gathered to participate to the School and Workshops, giving lectures and creating a unique and stimulating scientific environment for the senior as well as the young scientists.

More specifically, the ***Workshop on the Standard Model and Beyond*** has attracted 124 senior and young scientists in total; 92 of them have presented their current research project as workshop speakers.

The workshop speakers were the following:

J. Alves (IST), A. Anastasiou (ETH Zurich), I. Antoniadis (AEC Bern and LPTHE Paris), S. Arunasalam (Sydney), K. J. Bae (Institute for Basic Science), M. Bastero-Gil (Granada U.), A. Belyaev (Southampton U.), K. Benakli, G. Bhattacharyya (Saha Inst. of Nuclear Physics), C. Biggio (Genova U.), A. Bochniak (Jagiellonian University), J. Bossio (Universidad de Buenos Aires), F. Buccella (INFN Sezione di Napoli), A. Caldwell (MPI), L. Calibbi (ITP, Beijing),A. Casas (IFT-UAM/CSIC),S. Chakraborti (Indian Inst. of Technology),C. Coriano (Salento U.), I. Dalianis (NTUA), N. De Filippis (Politecnico & INFN Bari), A. De Roeck (CERN), A. Dedes (Ioannina U.), P. Diessner (DESY), M. Eto, W. J. Flieger (Silesia U.), R. Forty (CERN), D. Ghilencea (IFIN), D. Gorbunov (Institute for Nuclear Research of RAS), A. Goudelis (LPTHE - Paris), P. Govoni (Milano-Bicocca U. and INFN), N. Gubernari (TU Muenchen), P. Hansen (Copenhagen U.), N. Harnew (Oxford U.), K. Hasegawa (Kobe U.), S. Heinemeyer(IFT/IFCA (CSIC)), J. Heisig (RWTH Aachen University), Y. Hosotani (Osaka U.), N. Irges (NTUA), P. Kanti (Ioannina U.), A. Karam (Ioannina U,), J. E. Kim (Kyung Hee University), D. Kirilova (Inst. of Astronomy and NAO, Bulgarian Academy of Sciences), N. Košnik (Jozef Stefan Institute), A. Kulesza (University of Muenster), B. Kyae (Pusan National U.), Z. Lalak (Warsaw U.), G. Leontaris (Ioannina U.), B. Liu (Argonne National Laboratory), S. Lola (Patras U.), G. Manolakos (NTUA), M. Martinez (University of Zaragoza), N. Mavromatos (King's College London), V. Mitsou (Valencia U.), M. Mondragon (Instituto de Fisica UNAM), S. Munir (KIAS, Seoul), T. Nayak (NISER & CERN), H. Nielsen (NBI), K. Nikolopoulos (University of

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Birmingham), K. Nishiwaki (KIAS), A. Notari (Universitat de Barcelona), I. Oda (Ryukyus U.), Y. Ookouchi (Kyushu U.), S. Papadoudis (NTUA), Y. Papaphilippou (CERN), P. Paradisi (Padova U.), S. Pokorski (Warsaw U.), J. Reuter (DESY), A. Ringwald (DESY), E. Rond io (National Centre for Nuclear Research), G. Ross (Oxford U.), J. Roy (ITP, Chinese Academy of Sciences), H. Rzehak CP3-Origins, SDU), A. Sailer (CERN), P. Salucci (SISSA), A. Santra (Valencia U.), E. Saridakis (NTUA), S. Sarkar (University of Oxford & NBI Copenhagen) , M. Schmitt (Northwestern U.), T. Schoerner-Sadenius (DESY), P. Serpico (LAPTh, Annecy-le-Vieux), S. Seth (IPPP, Durham), C. S. Shin (IBS-CTPU), M. Son (Korea Advanced Institute of Science and Technology), P. Stangl (LAPTh Annecy), L. Stodolsky (MPI), D. Stoeckinger (TU Dresden), M. Tanimoto (Niigata University), A. Tarek (LPNHE), G. Tarna (IFIN-HH Bucharest & CNRS/IN2P3), S. Todt (TU Dresden), Z. Trocsanyi (Debrecen U.), G. Valencia (Monash University), T. Vami (Wigner RCP), p. Zalewski (NCBJ), R. Ziegler (CERN), R. Zwicky (Edinurgh U.).

The full programme of the Workshop was the following:

Saturday Sept 1st

9:00 – 9:30	Opening	
9:30 - 10:30	Tapan Nayak (NISER & CERN)	Characterizing the QCD plasma with the ALICE experiment at the LHC
10:30 – 11:00	Welcome by Mayor of Corfu	
11:00 - 11:30	Coffee break	
11:30 - 12:00	Zoltan Trocsanyi (Debrecen U.)	New results on the determination of the strong couplingNew results on the determination of the strong coupling
12:00 - 12:30	Nicola De Filippis (Politecnico & INFN Bari)	Higgs studies in ATLAS and CMS
12:30 – 13:00	Peter Hansen (Copenhagen U.)	Top physics in ATLAS and CMS
13:00 - 15:30	Lunch break	
15:30 - 16:00	Satyajit Seth (IPPP, Durham)	A numerical outlook over integration of subtraction terms
16:00 - 16:30	Roman Zwicky (Edinurgh U.)	Parity doubling as a tool for right-handed current searches
16:30 – 17:00	Pietro Govoni (Milano-Bicocca U. and INFN)	Status and perspectives of VBS measurements

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17:00 - 17:15	Stefanie Todt (TU Dresden)	Study of Vector Boson Scattering Processes with WW and WZ final states at the ATLAS detector
17:15 - 17:30	Nico Gubernari (TU Muenchen)	B to {P, V} form factors from light-cone sum rules (TBC)
17:30 - 18:00	Coffee break	
18:00 - 18:30	Peter Gubernari (DESY)	Renormalization of QCD at four and five loops
18:30 – 18:45	Somasuntharam Arunasalam (Sydney)	Low temperature electroweak phase transition in SM with hidden scale invariance

19.30 Welcome Reception

Sunday Sept. 2rd

9:00 – 9:30	Michael Schmitt (Northwestern U.)	Standard Model measurements at ATLAS and CMS
9:30 – 10:00	Shoaib Munir (KIAS, Seoul)	Signatures of the type-I 2HDM at the LHC
10:00 – 10:30	Karim Benakli	Natural alignment in a two Higgs doublet model
10:30-11:00	Sven Heinemeyer (IFT/IFCA (CSIC))	SUSY at the LHC and the ILC/CLIC
11:00 - 11:30	Coffee break	
11:30 - 12:00	Heidi Rzehak (CP3-Origins, SDU)	Higgs decaying to 4 fermions in the Two-Higgs-Doublet Model
12:00 - 12:30	Franco Buccella (INFN Sezione di Napoli)	b decays: a factory for hidden charm multiquarks
12:30 – 13:00	Yannis Papaphilippou (CERN)	Accelerator physics and technology challenges for the High-Luminocity-LHC
13:00 – 13:30	Thomas Schoerner-Sadenius (DESY)	The International Linear Collider - politics, logistics, and (some) physics
13:30 - 16:00	Lunch break	
16:00 – 16:30	Andre Sailer (CERN)	CLIC project and physics potential
16:30-17:00	Paride Paradisi (Padova U.)	The quest for new physics at the intensity frontier
17:00 - 17:30	Leo Stodolsky (MPI)	Hardron cross sections at highest energies
17:30 – 18:00	Allen Caldwell (MPI)	Proton-driven plasma acceleration: A future for deep inelastic scattering

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18:00 - 18:30	Coffee break	
18:30 - 19:00	Anna Kulesza (University of Muenster)	Associate production of a H, W or Z with a t-tbar pair at the LHC: theoretical predictions at NLO+NNLL
19:00 - 19:15	Ahmed Tarek (LPNHE)	Measurement of Higgs boson fiducial and differential cross sections in the two-photon decay channel with 80 fb-1 of 13 TeV proton-proton collision data with
19:15 – 19:30	Joao Alves (IST)	Controlled flavour changing neutral couplings in two Higgs doublet models

Monday Sept. 3rd

9:00 – 10:00	Roger Forty (CERN)	Rare Decays and Flavour Anomalies
10:00 - 11:00	Neville Harnew (Oxford U.)	Latest LHCb results on CP violation and spectroscopy
11:00 - 11:30	Coffee break	
11:30 - 12:00	Gautam Bhattacharyya (Saha Inst. of Nuclear Physics)	Composite Higgs Phenomenology
12:00 - 12:30	Nejc Košnik (Jozef Stefan Institute)	Scalar leptoquarks from GUT to accommodate the B-physics anomalies
12:30 – 13:00	Kenji Nishiwaki (KIAS)	Simultaneous explanation of K and B anomalies in vectorlike compositeness
13:00 – 13:30	German Valencia (Monash University)	Additional neutrinos and the B anomalies
13:30 - 16:00	Lunch break	
16:00 - 16:30	Peter Stangl (LAPTh Annecy)	Flavour anomalies and (fundamental) partial compositeness
16:30 - 17:00	Dominik Stoeckinger (TU Dresden)	Muon g-2 and Lepton Flavor Violation
17:00 – 17:30	Robert Andreas Ziegler (CERN)	Flavored Axion Models
17:30 - 18:00	Philip Diessner (DESY)	Looking for R-symmetric SUSY via precision measurements and direct searches at the LHC
18:00 - 18:30	Coffee break	
18:30 - 19:00	Maria Martinez (University of Zaragoza)	Dark Matter searches via direct detection
19:00 - 19:15	Grigore Tarna (IFIN-HH Bucharest & CNRS/IN2P3)	Searches for new physics in FCNC top decays

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19:15 - 19:30	Joydeep Roy (ITP, Chinese Academy of Sciences)	Probing leptoquark chirality via top polarization at the LHC

Tuesday Sept. 4th

9:00 – 10:00	Albert De Roeck (CERN)	News from the LHC
10:00 – 11:00	Ewa Rondio (National Centre for Nuclear Research)	Neutrino experiments: a review
11:00 - 11:30	Coffee break	
11:30 - 12:00	Morimitsu Tanimoto (Niigata University)	Modular Symmetry in lepton flavor
12:00 - 12:30	Carla Biggio (Genova U.)	Constraints on the low scale typeIII seesaw
12:30 – 13:00	Kouhei Hasegawa (Kobe U.)	Majorana neutrino masses in gauge-Higgs unification
13:00 – 13:30	Nikos Mavromatos (King's College London)	CPT violation: from matter-antimatter asymmetry in the early universe to entangled quantum states
13:30 - 16:00	Lunch break	
16:00 - 16:30	Holger Nielsen (NBI)	Anomalies/Deviations of experiment from Standard Model explained as non-perturbative effects due to large top-Yukawa coupling
16:30 - 17:00	Stefan Pokorski (Warsaw U.)	Proton decay?
17:00 – 17:30	Vasiliki Mitsou (Valencia U.)	Monopole production via photon fusion at the LHC
17:30-18:00	Daniela Kirilova (Inst. of Astronomy and NAO, Bulgarian Academy of Sciences)	BBN cosmological constraints on beyond Standard Model neutrino
18:00 - 18:30	Coffee break	
18:30 - 18:45	Arkadiusz Bochniak (Jagiellonian University)	Pseudo-Riemannian structure of the noncommutative Standard Model
18:45- 19:00	Wojciech Jakub Flieger (Silesia U.)	Neutrino mixing analysis based on singular values
19:00 – 19:15	Jonathan Bossio et al (Universidad de Buenos Aires)	Search for new phenomena in high-mass final states with photon + jet from pp collisions at 13 TeV in ATLAS

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Wednesday Sept. 5th

10,5	Jihn E. Kim (Kyung Hee University)	"Invisible" axion rolling through QCD phase transition
9:30 – 10:00	Alessio Notari (Universitat de Barcelona)	Observable windows for QCD axion as a hot relic
10:00 – 10:30	Andreas Ringwald (DESY)	Axion properties in GUTs
10:30 – 11:00	Ignatios Antoniadis (AEC Bern and LPTHE Paris)	Inflation from supersymmetry breaking
11:00 - 11:30	Coffee break	
11:30 - 12:00	Graham Ross (Oxford U.)	Inertial spontaneous symmetry breaking and quantum scale invariance
12:00 - 12:30	Ichiro Oda (Ryukyus U.)	Planck and Electroweak Scales Emerging from Conformal Gravity
12:30 – 13:00	Zygmunt Lalak (Warsaw U.)	Stability of electroweak vacuum and domain walls in the extensions of the SM
13:00 – 13:30	Dmitry Gorbunov (Institute for Nuclear Research of RAS)	Avoiding strong coupling problem in the Higgs inflation with R^2-term
13:30 - 16:00	Lunch break	
16:00 - 16:30	Dumitru Ghilencea (IFIN)	Quantum scale invariance at three-loops
16:30 - 17:00	Alexander Belyaev (Southampton U.)	Decoding the nature of dark matter
17:00 – 17:30	Mar Bastero-Gil (Granada U.)	Little warm inflation
17:30 - 18:00	Albert De Roeck (CERN)	FCC project
18:00 - 18:15	Coffee break	
18:15 - 18:30	Alexandros Karam (Ioannina U,)	Frame-dependence of inflationary observables in scalar-tensor gravity
18:30 – 18:45	Stratos Papadoudis (NTUA)	Complex Langevin analysis of the SSB in dimensionally reduced Supersymmetric Yang-Mills models
20:00	**Concert by the Philharmonic Orchestra of Skripero**	

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Thursday Sept. 6th

9:00 – 9:30	Babis Anastasiou (ETH Zurich)	Infrared divergences of two-loop Feynman diagrams
9:30 – 10:00	Minho Son (Korea Advanced Institute of Science and Technology)	Group theoretic approach to theory of fermion production
10:00 – 10:30	Georgios Leontaris (Ioannina U.)	Perturbative moduli stabilisation and inflation in type IIB/F-theory
10:30 – 11:00	Chang Sub Shin (IBS-CTPU)	Axionic electroweak baryogenesis
11:30	**Excursion**	

Friday Sept. 7th

9:00 – 9:30	Arka Santra (Valencia U.)	SUSY searches in ATLAS and CMS
9:30 – 10:00	Piotr Zalewski (NCBJ)	Exotics and BSM in ATLAS and CMS (non DM searches)
10:00 – 10:30	Claudio Coriano (Salento U.)	Exact correlators from conformal Ward identities in momentum space and perturbative realizations
10:30 – 11:00	Bumseok Kyae (Pusan National U.)	EWSB by a neutral sector: dynamical relaxation of the little hierarchy problem
11:00 - 11:30	Coffee break	
11:30 - 11:45	Tamas Almos Vami (Wigner RCP)	Searches for strong production of supersymmetry in CMS
11:45 - 12:15	Yutaka Hosotani (Osaka U.)	Gauge-Higgs unification: tests at future electron-positron colliders
12:15 – 12:45	Nikos Irges (NTUA)	RG flows in non-perturbative Gauge-Higgs unification
12:45 – 13:15	Myriam Mondragon (Instituto de Fisica	Finite Unified Theories and their predictions
13:15 – 13:45	Yutaka Ookouchi (Kyushu U.)	Decay of false vacua via impurities in string theories
13:45 - 16:00	Lunch break	
16:00 - 16:30	Subir Sarkar (Oxford U. & NBI)	Is the universe isotropic?
16:30 - 17:00	Athanasios Dedes (Ioannina U.)	The decay h -> gamma gamma in SMEFT

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17:00 – 17:30	Kyu Jung Bae (Institute for Basic Science)	ALPino to ALP: Solution to Small-Scale Problems
17:30 - 18:00	Jürgen Reuter (DESY)	New physics in vector boson scattering at the LHC
18:00 - 18:30	Coffee break	
18:30 - 19:00	Minoru Eto	Localization of the Standard Model via Higgs mechanism and a finite electroweak monopole from non-compact five dimensions
20:00	**Conference Dinner**	

Saturday Sept. 8th

9:00 – 10:00	Subir Sarkar (University of Oxford & NBI Copenhagen)	The discovery of gravitational waves (student lecture)
10:00 – 10:30	Smaragda Lola (Patras U.)	Unified theories, dark matter and the LHC
10:30 – 11:00	Lorenzo Calibbi (ITP, Beijing)	Examples of the interplay between LHC and Dark Matter
11:00 - 11:30	Coffee break	
11:30 - 12:00	Bingxuan Liu (Argonne National Laboratory)	Dark matter in ATLAS and CMS
12:00 - 12:30	Konstantinos Nikolopoulos (University of Birmingham)	Search for light Dark Matter with NEWS-G
12:30 – 13:00	Alberto Casas (IFT-UAM/CSIC)	Anomaly-free dark matter evading direct detection
13:00 – 13:30	Andreas Goudelis (LPTHE - Paris)	Freeze-in dark matter production: models and phenomenology
13:30 - 16:00	Lunch break	
15:30 - 16:00	Panagiota Kanti (Ioannina U.)	Scalar-Gauss-Bonnet Theories: Evasion of No-Hair Theorems and novel black-hole solutions
16:00 - 16:30	Jan Heisig (RWTH Aachen University)	Dark matter genesis beyond the WIMP paradigm
16:30 - 17:00	Paolo Salucci (SISSA)	The Dark Matter & the Exotic Dark Matter
17:00 – 17:30	Pasquale Serpico (LAPTh, Annecy-le-Vieux)	Cosmic microwave background as a probe of dark relics
17:30 - 17:45	Sreemanti Chakraborti (Indian Inst. of Technology)	Study of multi-component dark matter scenario

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17:45 - 18:15	Coffee break	
18:15 - 18:30	George Manolakos (NTUA)	Three-dimensional gravity as a noncommutative gauge theory
18:30 – 19:00	Ioannis Dalianis (NTUA)	Testing BSM Scenarios with the CMB Precision Cosmology
19:00 – 19:30	Emmanuel Saridakis (NTUA)	The EFT approach to torsional modified gravities & gravitational wave

Saturday Sept. 9th Departure Day

The ***Workshop on Dualities and Generalized Geometries*** has attracted 82 seniors and young scientist in total, and 54 of them have presented their current research project as workshop speakers.

The Workshop speakers were the following:

A. Arvanitakis (Imperial College London), E. Bergshoeff (University of Groningen, Van Swinderen Institute), C. Blair (Vrije Universiteit Brussel), A. J. Bochniak (Jagiellonian University), E. Boffo (Jacobs University Bremen), M. Bugden (Australian National U.), Y. Cagnacci (IAFE, Argentina), M. Cederwall (Chalmers U. of Technology), S. Demulder (Vrije Universiteit Brussel), S. Driezen (Vrije U. Brussel/Swansea U.), F. Farakos (KU Leuven), F. Hassler (University of Oviedo), M. Henneaux (ULB), Y. Herfray (ENS Lyon), B. Hoare (ETH Zurich), O. Hohm (Stony Brook University), C. Hull (Imperial College), L. Jonke (Rudjer Boskovic Institute), F. S. Khoo (Ruđer Bošković Institute), Z. Kokenyesi (Wigner RCP, Budapest), V. Kupriyanov (MPI Munich), O. Lechtenfeld (Leibniz U. Hannover), H.-S. Lee (KAIST), V. Lekeu (U.L.B.), U. Lindstrom (Uppsala U. & ImperiaI), Y. Lozano (University of Oviedo), D. Luest (LMU/MPI-Muenchen), E. Malek (LMU, Munich), D. Marques (IAFE), K. Morand (Sogang University), E. Musaev (Moscow Institute of Physics and Technology), C. Nunez (Swansea U.), D. Osten (MPI, Munich), R. Otsuki (Queen Mary U., London), J.-H. Park (Sogang University, Seoul), N. Petri (Bogazici University), F. Pezzella (INFN - Naples Section), F. Riccioni (INFN Roma La Sapienza), F. Rudolph (LMU Munich), H. Samtleben (ENS, Lyon), P. Schupp (Bern U.), Y. Sekiguchi (University of Bern), K. Sfetsos (National and Kapodistrian University of Athens), C. Strickland-Constable (Herlfordshire U.), J. Svoboda (Charles University), R. Szabo (Heriot-Watt U., Edinburgh), D. Thompson (Swansea U.), M. Tournoy (KU Leuven), F. Valach (University of Geneva), V. Vall Camell (LMU and MPI), K. Wright (Australian National U.), L. Wulff (Masaryk University). The full programme of the Workshop was the following:

Sunday Sept. 9th

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PROCEEDINGS OF SCIENCE

Arrival Day/Registration

Monday Sept. 10th

09:30 – 10:30	Henning Samtleben (ENS, Lyon)	Introduction and Review of Exceptional Field Theory
10:30-11:00	Coffee break	
11:00 – 11:30	Henning Samtleben (ENS, Lyon)	Introduction and Review of Exceptional Field Theory
11:30 – 12:00	Olaf Hohm (Stony Brook University)	Duality covariance and higher gauge theories
12:00 – 12:30	Martin Cederwall (Chalmers U. of Technology)	Tensor hierarchy algebras and the gauge structure of extended geometry
13:30 - 15:30	Lunch break	
15:30 – 16:00	Emanuel Malek (LMU, Munich)	Exceptional field theory and supersymmetric AdS vacua
16:00 – 16:30	Peter Schupp (Bern U.)	Generalized Geometry and Gravity
16:30 – 17:00	Coffee break	
17:00 – 17:35	Valenti Vall Camell (LMU and MPI)	Half supersymmetric AdS7 and AdS6 from Exceptional Field Theory
17:15 – 17:30	Fotis Farakos (KU Leuven)	New Supergravity Uplifts
17:30 – 17:45	Victor Lekeu (U.L.B.)	Supergravity gaugings and BRST cohomology
17:45 – 18:00	Yannick Herfray (ENS Lyon)	3D and 4D gravity theories from 6 and 7 dimensions
18:00 – 18:15	Magnus Tournoy (KU Leuven)	New D-Term and de Sitter vacua in supergravity

19.30 Welcome Reception

Tuesday Sept. 11th

09:30 – 10:30	Daniel Thompson (Swansea U.)	Introduction to generalised T-dualities and their applications
10:30-11:00	Coffee break	
11:00 – 11:30	Daniel Thompson (Swansea U.)	Introduction to generalised T-dualities and their applications

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11:30 – 12:00	Carlos Nunez (Swansea U.)	Aspects of Gauge-Strings Dualities
12:00 – 12:30	Ben Hoare (ETH Zurich)	Poisson-Lie duals of eta-deformed superstrings
13:30 - 15:30	Lunch break	
15:30 – 16:00	Linus Wulff (Masaryk University)	Kappa symmetry, generalized supergravity equations and non-abelian T-duality
16:00 – 16:30	Falk Hassler (University of Oviedo)	Taking Advantage of Poisson-Lie Symmetry
16:30 – 17:00	Coffee break	
17:00 – 17:35	Saskia Demulder (Vrije Universiteit Brussel)	Exploring Poisson-Lie T-duality from a doubled world
17:15 – 17:30	Sibylle Driezen (Vrije U. Brussel/Swansea U.)	Open strings in integrable deformations of sigma models
17:30 – 17:45	David Osten (MPI, Munich)	On the O(d,d)-structure of non-abelian T-duality, generalised fluxes and integrable deformations
17:45 – 18:00	Fridrich Valach (University of Geneva)	Courant algebroids, Poisson-Lie T-duality and supergravity (of type II)
18:00 – 18:15	Yuta Sekiguchi (University of Bern)	Killing spinors from classical r-matrices

Wednesday Sept. 12th

09:30 – 10:00	Marc Henneaux (ULB)	Gravitational electric-magnetic duality and the (4,0) exotic theory in 6 dimensions
10:00-10:30	Chris Hull (Imperial College)	
10:30-11:00	Coffee break	
11:00 – 11:30	Ulf Lindstrom (Uppsala U. & ImperiaI)	SKT and T-duality
11:30 – 12:00	Yolanda Lozano (University of Oviedo)	Non-Abelian T-duality and AdS/CFT: the CFT side
12:00 – 12:30	Franco Pezzella (INFN - Naples Section)	Simple Models for Non-Abelian T-duality and Double Field Theory

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13:30 - 15:30	Lunch break	
	Free Afternoon	

Thursday Sept. 13th

09:30 – 10:30	Richard Szabo (Heriot-Watt U., Edinburgh)	An introduction to nonassociative physics
10:30-11:00	Coffee break	
11:00 – 11:30	Richard Szabo (Heriot-Watt U., Edinburgh)	An introduction to nonassociative physics
11:30 – 12:00	Dieter Luest (LMU/MPI-Muenchen)	W-Supergravity
12:00 – 12:30	Charles Strickland-Constable (Herlfordshire U.)	Finite heterotic deformations and holomorphic Courant algebroids
13:30 - 15:30	Lunch break	
15:30 – 16:00	Felix Rudolph (LMU Munich)	A Connection for Born Geometry
16:00 – 16:15	Alex Arvanitakis (Imperial College London)	Brane Wess-Zumino terms and the L-infinity algebra inside ECG/EFT
16:15 – 16:30	Josef Svoboda (Charles University)	Double Courant Algebroid of DFT, Born Geometry and Fluxes
16:30 – 17:00	Coffee break	
17:00 – 17:35	Zoltan Kokenyesi (Wigner RCP, Budapest)	Generalized geometry, A/B-models and topological M-theory
17:15 – 17:30	Kyle Wright (Australian National U.)	Generalised contact geometry as reduced generalised complex geometry
17:30 – 17:45	Mark Bugden (Australian National U.)	Attempts to invert non-abelian T-duality: a gauging approach
17:45 – 18:00	Fech Scen Khoo (Ruđer Bošković Institute)	The Geometric Structure of Double Field Theory

Friday Sept. 14th

09:30 – 10:00	Konstantinos Sfetsos (National and Kapodistrian University of Athens)	Aspects of interacting CFTs and the C-Theorem

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10:00 – 10:30	Eric Bergshoeff (University of Groningen, Van Swinderen Institute)	String Theory and Nonrelativistic Gravity
10:30-11:00	Coffee break	
11:00 – 11:30	Diego Marques (IAFE)	The heterotic generalized Green-Schwarz transformation
11:30 – 12:00	Fabio Riccioni (INFN Roma La Sapienza)	Space-filling branes and gaugings
12:00 – 12:30	Chris Blair (Vrije Universiteit Brussel)	O-folds: Orientifolds and Orbifolds in Exceptional Field Theory
13:30 - 15:30	Lunch break	
15:30 – 16:00	Ray Otsuki (Queen Mary U., London)	Exotic Branes in Extended Field Theories
16:00 – 16:30	Edvard Musaev (Moscow Institute of Physics and Technology)	Dynamics of branes in Double Field Theory
16:30 – 17:00	Coffee break	
17:00 – 17:35	Kevin Morand (Sogang University)	Classification of non-Riemannian doubled-yet-gauged spacetime
17:15 – 17:30	Yago Cagnacci (IAFE, Argentina)	L-infinity algebras and Tensor Hierarchies in Exceptional Field Theory
17:30 – 17:45	Nicolo Petri (Bogazici University)	AdS3 vacua and surface defects in massive IIA
17:45 – 18:00	Eugenia Boffo (Jacobs University Bremen)	Low-energy supergravity action from graded symplectic algebra
18:00 – 18:15	Arkadiusz Jakub Bochniak (Jagiellonian University)	Pseudo-Riemannian Structure of The Noncommutative Standard Model
20:00	**Conference Dinner**	

Saturday Sept. 15th

09:30 – 10:00	Jeong-Hyuck Park (Sogang University, Seoul)	Einstein Double Field Equations
10:00-10:30	Hye-Sung Lee (KAIST)	Kerr-Schild Double Field Theory and Classical Double Copy
10:30-11:00	Coffee break	
11:00 – 11:30	Larisa Jonke (Rudjer Boskovic Institute)	The membrane sigma model for Double Field Theory

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11:30 – 12:00	Vladislav Kupriyanov (MPI Munich)	Non-commutative gauge theories from L-infinity algebras
12:00 – 12:30	Olaf Lechtenfeld (Leibniz U. Hannover)	A new construction of rational electromagnetic knots

Sunday Sept. 16th

Departure Day

The "***The Critical Point and Onset of Deconfinement Conference "CPOD 2018",*** has attracted 75 senior and young scientists in total.

The invited Conference Lecturers were:

H. Stöcker (Darmstadt,GSI), S. Mukherjee (Brookhaven Natl. Lab.), L. Csernai (Bergen U.), A. Rustamov (NNRC, Baku), V. Friese (Darmstadt, GSI), M. Kapishin (Dubna, JINR), K. Grebieszkow (Warsaw U. Tech.), T. Galatyuk (Darmstadt, T.U. - GSI), G. Odyniec (LBNL, STAR), C. Ratti (Houston U.), S. Kowalski (Silesia U.), L. McLerran (Washington U.)

The full programme of the Conference was the following:

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Sunday Sept. 23th
Arrivals/Registration Day

Monday Sept. 24th

09:00-09:45	Horst Stoecker (FiAS & Goethe U. Frankfurt & GSI)	MAGIC - how Matter's extreme phases can be revealed in Gravitational wave observations and in relativistic heavy Ion Collision experiments
09:45-10:30	Grazyna Odyniec (LBNL)	Results from Beam Energy Scan (BES) Program at RHIC and plans for the second phase of BES
10:30-11:00	Coffee break	
11:00 – 11:45	Katarzyna Grebieszkow (Warsaw U. of Technology)	New results on spectra and fluctuations from NA61
11:45 – 12:00	Jasmine Brewer (MIT)	Searching for the QCD critical point via the rapidity dependence of cumulants
12:00 – 12:30	Nikolaos Davis (Institute of Nuclear Physics PAN)	Recent results from proton intermittency analysis in nucleus-nucleus collisions from NA61/SHINE at CERN SPS
12:30-12:45	Boris Tomasik (U. Mateja Bela)	Benchmark values for net proton number fluctuations
12:45-13:30	Anar Rustamov (GSI/BSU/NNRC)	Identified Particle Fluctuations from ALICE at the CERN LHC
13:30 - 16:00	Lunch break	
16:00-16:30	Christopher Plumberg (U. of Minnesota / U. of Lund)	QCD matter with a crossover and a first-order phase transition
16:30-17:15	Laszlo P.Csernai (U. of Bergen / IFT)	Fluid dynamical phenomena in QGP and its recent experimental signatures
17:15-17:30	Coffee break	
17:30-18:00	Tobias Fischer (University of Wroclaw)	Explosions of massive blue-supergiant stars triggered by the QCD phase transition
19:30	**Concert of the Mixed Choir of Anemomylos "Thomas Flagginis"**	
20.30	**Welcome Reception**	

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Tuesday Sept. 25th

09:00-09:45	Swagato Mukherjee (Brookhaven National Laboratory)	QCD phase diagram from lattice
09:45-10:30	Claudia Ratti (University of Houston)	Lattice-based Equation of State of QCD matter with a critical point
10:30-11:00	Coffee break	
11:00 – 11:30	Jishnu Goswami (Bielefeld University)	Critical end points in (2+1)-flavor QCD with imaginary chemical potential
11:30 – 12:00	Frithjof Karsch (Bielefeld University)	News on net-charge fluctuations and correlations from lattice QCD
12:00 – 12:30	Arghya Chatterjee (Variable Energy Cyclotron Centre, HBNI)	Off-diagonal cumulants of net-charge, net-proton and net-kaon multiplicity distributions in Au+Au collisions at √sNN=7.7-200 GeV from STAR
12:30-13:00	Georg Wolschin (Heidelberg University)	Bottomonia physics at RHIC and LHC
13:00-13:15	Maciej Lewicki (University of Wroclaw)	Recent measurements of identified hadron spectra and multiplicities in Ar+Sc and Be+Be collisions at SPS energies
13:15-13:30	Alexandra Friesen (Joint Institute for Nuclear Research)	Strange matter and kaon to pion ratio in SU(3) PNJL model
13:30 - 16:00	Lunch break	
16:00 – 16:30	Leonid Glozman (University of Graz)	Implications of the chiralspin symmetry for QCD at high temperatures and densities
16:30-17:00	Christoph Herold (Suranaree U. of Technology)	Production of Entropy at the Chiral Phase Transition from Dissipation and Noise
17:00-17:30	Shijun Mao (Xi'an Jiaotong University)	Chiral symmetry restoration and quark deconfinement beyond mean field in a magnetized PNJL model"
17:30 – 18:00	Coffee break	
18:00-18:30	Larissa Bravina (University of Oslo)	Directed flow and freeze-out in relativistic heavy-ion collisions at NICA and FAIR energies
18:30-18:45	Kun Xu (IHEP, CAS)	"QCD Critical Point and Finite size effect
18:45-19:00	Nicolas Wink (Heidelberg University)	From first principle QCD to dynamical fluctuations

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19:00-19:15	Israel Portillo Vazquez (University of Houston)	QCD phase diagram with a critical point from holographic black holes

Wednesday Sept. 26th

09:00-09:30	Jacquelyn Noronha-Hostler (Rutgers University)	Freeze-out temperature from net-Kaon fluctuations at RHIC
09:30-10:00	Juan Torres-Rincon (Stony Brook University)	Nuclear correlations and modifications of the nucleon-nucleon potential due to the QCD critical mode
10:00-10:30	Marlene Nahrgang (SUBATECH)	Dynamics of net-baryon density fluctuations near the QCD critical point
10:30-11:00	Coffee break	
11:00 – 11:30	Fotios Diakonos (University of Athens)	Finite-size scaling, Intermittency and the QCD critical point
11:30 – 12:00	Marcus Bluhm (University of Wroclaw)	Finite size effects on critical fluctuations
12:00 – 12:30	David Blaschke (JINR Dubna, Russian Federation)	Chiral symmetry restoration by parity doubling and the structure of neutron stars"
12:30-13:00	Anton Motornenko (Frankfurt Institute for Advanced Studies)	Equation of state for hot QCD and compact stars from mean field approach
13:00-13:30	Fabian Rennecke (Brookhaven National Laboratory)	Strangeness Neutrality, Baryon-Strangeness Correlations and the Phase Structure of QCD
13:30 - 16:00	Lunch break	
16:00 – 16:30	Rene Bellwied (University of Houston)	Composite particle production in relativistic particle collisions through quantum entanglement
16:30-16:45	Barnabas Porfy (Wigner Research Centre for Physics, Eötvös Loránd U.)	First NA61/SHINE results on Bose-Einstein correlation function
16:45-17:15	Pablo Pais (KU Leuven & U. Karlova)	Gribov horizon, Polyakov loop and finite temperature
17:15 – 17:30	Coffee break	
17:30-20:00	IAC meeting	

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Thursday Sept. 27th

09:00-09:45	Volker Friese (GSI - Helmholtzzentrum fur Schwerionenforschung)	Prospects for the study of baryon-rich matter at new facilities
09:45 - 10:30	Tetyana Galatyuk (TU Darmstadt / GSI)	Decoding the Phase structure of QCD at high μB with HADES
10:30 - 11:00	Coffee break	
11:00 – 11:45	Mikhail Kapishin (Joint Inst. for Nuclear Research)	Studies of baryonic matter in the BM@N and MPD experiments at Nuclotron/NICA
11:45 – 12:15	Takao Sakaguchi (BNL)	High density matter physics at J-PARC-HI
12:15 – 12:45	Alexander Sorin (Joint Institute for Nuclear Research)	Vorticity, hydrodynamic helicity and polarization in baryon-rich matter
12:45 – 13:15	Arkadiy Taranenko (National Research Nuclear University)	Anisotropic flow measurements at NICA energies
13:15 - 16:00	Lunch break	
	Free Afternoon	

Friday Sept. 28th

09:00-09:30	Ilya Selyuzhenkov (GSI / MEPhI / EMMI)	Anisotropic flow measurement from NA61/SHINE and NA49 experiments at CERN SPS
09:30 - 10:00	Nikolaos Davis (Institute of Nuclear Physics, Polish Academy of Sciences)	Electromagnetic effects and the longitudinal evolution of the system at CERN SPS energies
10:00 – 10:15	Jakub Cimerman (Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University)	Event averaging and event-shape sorting as seen by femtoscopy

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10:15 – 10:30	Sergey Morozov (Russian Academy of Sciences (RU))	Forward hadron calorimeter (PSD) of NA61/SHINE for heavy ion studies and its upgrade for experiments beyond 2020
10:30– -11:00	Coffee break	
11:00 – 11:30	Yi Yin (MIT)	QCD critical point, fluctuations and hydrodynamics
11:30 – 11:45	Gregory Ridgway (MIT)	Understanding the out-of-equilibrium dynamics near a critical point with Hydro+
11:45– 12:00	Jean-Bernard Rose (Frankfurt Institute for Advanced Studies)	Shear viscosity and resonance lifetimes in the hadron gas
12:00 – 12:30	Volodymyr Vovchenko (Goethe U. Frankfurt)	QCD equation of state at finite baryon density with fugacity expansion
12:30 – 12:45	Radka Sochorová (FNSPE, Czech Technical U. Prague)	Evolution of multiplicity fluctuations in heavy ion collisions
12:45 – 13:00	Dániel Kincses (Eötvös Loránd U. Budapest)	PHENIX results on centrality and collision energy dependent Levy analysis of HBT correlation functions
13:00 – 13:15	Anastasia Merzlaya (St Petersburg State U., Jagiellonian U.)	Open charm measurements at CERN SPS energies in the NA61/SHINE experiment - status and plans
13:15 – 13:30	Angelika Magdalena Tefelska (Warsaw U. of Technology)	K*(892)0 production in p+p interactions at 158 GeV/c from NA61/SHINE
13:30 - 16:00	Lunch break	
16:00 – 16:30	Pengfei Zhuang (Tsinghua University)	Meson properties in magnetized quark matter
16:30 – 17:15	Seweryn Kowalski (University of Silesia)	Experimental Summary Aspects of CPOD
17:15 – 17:45	Coffee break	
17:45 – 18:30	Larry McLerran (Institute for Nuclear Theory, U. Washington Seattle)	Theoretical Summary
18:30 – 18:45	Closing	

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Most of the presentations appeared on line in the CORFU2018 homepage just after they were delivered: http://www.physics.ntua.gr/corfu2018/lectures.html

We sincerely thank everybody who contributed to the success of CORFU2018, in particular the young students that came long ways from many different countries. Special thanks are due to all speakers and the organizers, the conference secretary Mrs. Ifigenia Moraiti and the group of our graduate students who helped in various ways and contributed in a very significant manner to the success of the meeting. Finally, we wish to express our gratitude to our sponsors whose financial contribution made it all possible.

They were:

1. COST Action CA15108, Connecting insights in fundamental physics
2. COST: Action CA16201 Unraveling new physics at the LHC through the precision frontier
3. COST Action MP1405, Quantum structure of spacetime (QSPACE)
4. ITNs: HiggsTools, Invisibles
5. ERC Grants: LHCtheory Theoretical Predictions and Analyses of LHC Physics: "Advancing the Precision Frontier", LHCTHEORY, HICCUP, “UV-Completion through Bose-Einstein Condensation: A Quantum Model of Black Holes”, “Strings and Gravity”
6. National Technical University of Athens
7. School of Applied Mathematical and Physical Sciences (SAMPS), National Technical Municipality of Corfu
8. University of Athens (NTUA)
9. Region of Ionian Islands
10. OTE: National Telecommunication Company
11. CERN
12. Deutsches Elektronen-Synchrotron (DESY)
13. Max Planck Institute for Physics
14. Max Planck Institute for Gravitational Physics (Albert Einstein Institute)
15. Sommerfeld Center for Theoretical Physics
16. National Center of Scientific Research “Demokritos”
17. Athens University
18. SISSA: Scuola Internazionale Superiore di Studi Avanzati
19. ICTP: The Abdus Salam International Centre for Theoretical Physics
20. IPPP Durham: Institute for Particle Physics Phenomenology
21. LAPP: Laboratoire d'Annecy – le - Vieux de Physique des Particules

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22. LAPTH: Laboratoire d'Annecy – le - Vieux de Physique Theorique
23. LPTENS: Laboratoire de physique théorique ENS
24. Universidad Autonoma de Madrid
25. Instituto de Fisica Teorica UAM/CSIC
26. Uppsala University
27. University of Warsaw
28. University of Granada
29. Technical University of Lisbon
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31. Oxford University
32. Universidad Autonoma de Madrid,
33. Scuola Normale Superiore, Pisa
34. NCSR "Demokritos"
35. ITP Heidelberg
36. CPHT, Ecole Polytechnique
37. Queen Mary University of London,
38. Rudjer Bošković Institute Zagreb,
39. Swansea University

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