

Summer School and Workshop on the Standard Model and Beyond September 1 - 11, 2015

Tuesday Sept 1st
Arrival / Registration day

School lectures		
16:00 - 17:00	D. Stockinger (Dresden Tech U.)	Electroweak Standard Model 1
17:00 - 18:00	G. Branco (CFTP/IST, U. Lisboa)	Flavour Physics 1
18:00 - 18:20	Coffee break	
18:20 - 18:50	Discussion	
Workshop talks		
18:50 - 19:20	M. Koratzinos (Geneva U.)	The FCC-ee study
19:20 - 19:50	P. Ko (Korea IAS)	Towards EW scale DM with dark gauge symmetries

Wednesday Sept 2nd

School lectures		
9:00 - 10:00	D. Stockinger (Dresden Tech U.)	Electroweak Standard Model 2
10:00 - 11:00	G. Branco (CFTP/IST, U. Lisboa)	Flavour Physics 2
11:00 - 11:30		
11:30 - 12:30	D. Stockinger (Dresden Tech U.)	Electroweak Standard Model 3
12:30 - 13:30	G. Tonelli (CERN, INFN Pisa)	CMS - Physics Results
13:30 - 16:00	Lunch break	
16:00 - 17:00	N. Harnew (Oxford U.)	Physics highlights from LHCb
Workshop talks		
17:00 - 17:30	A. Ali (DESY)	Physics of Multiquark States
17:30-18:00	S.F. King (Southampton U.)	Unified Models of Neutrinos, Flavour and CP Violation
18:00 - 18:20	Coffee break	
18:20 - 18:50	Discussion	
18:50 - 19:20	D. Emmanuel-Costa (CFTP/IST, U. Lisboa)	SOSpin, a c++ tool for decomposition of SO(2N) spinorial representations
19:20-19:35	N. Rosa Agostinho (CFTP/IST, U. Lisboa)	A Novel Parametrization for Leptonic Mixing Matrix and CP Violation

Thursday Sept. 3rd

School lectures		
9:00 – 10:00	S. Heinemeyer (U. Cantabria)	Higgs theory: SM and SUSY 1
10:00 - 11:00	W. Hollik (MPI Munich)	Introduction to SUSY and MSSM 1
11:00 - 11:30		
11:30 - 12:30	M. Cirelli (Saclay, SPHT)	Dark Matter searches status as of 2015
12:30 - 13:30	F. Staub (CERN)	Introduction to SARAH and related tools
13:30 - 16:00	Lunch break	
16:00 - 17:00	F. Simon (MPI Munich)	CLIC: a multi TeV e+e- collider
Workshop talks		
17:00 - 17:30	F. Buccella (INFN)	Quantum statistical parton distribution function
17:30 – 18:00	E.J. Chun (Korea IAS)	Muon g-2 in Two Higgs Doublet Models
18:00 - 18:20	Coffee break	
18:20 - 18:50	Discussion	
18:50 - 19:20	T. Hahn (Munich, Max Planck Inst.)	Status of FeynHiggs
19:20 - 19:50	F. Staub (CERN)	Tutorial to SARAH

Friday Sept 4th

School lectures		
9:00 - 10:00	W. Hollik (MPI Munich)	Introduction to SUSY and MSSM 2
10:00 - 11:00	S. Heinemeyer (U. Cantabria)	Higgs theory: SM and SUSY 2
11:00 - 11:30	Coffee break	
11:30 - 12:30	F. Lizzi (INFN, Napoli)	Noncommutative geometry, spectral action and the Higgs
12:30 - 13:30	S. Pokorski (U. Warsaw)	Uncolored way beyond the SM
13:30 - 16:00	Lunch break	
16:00 - 17:00	G. Zanderighi (CERN and Oxford U.)	QCD 1
17:00 – 18:00	E. Tsesmelis (CERN and Oxford U.)	Future Accelerators at the High Energy Frontier
18:00 - 18:20	Coffee break	
18:20 - 18:50	Discussion	
Workshop and student's talks		
18:50 - 19:20	B. Grzadkowski (Warsaw U.)	A stable Higgs portal with vector dark matter
19:20-19:35	P. Koci (Masaryk U.)	Supersymmetry breaking from complex linear superfield
19:35-19:50	P. Tornambe (U. Freiburg)	Search for Supersymmetry in final states with two same sign leptons or three leptons and jets

Saturday Sept 5th

School lectures		
9:00 - 10:00	G. Zanderighi (CERN and	QCD 2
10:00 - 11:00	G. Ross (Oxford U.)	BSM after LHC 8 TeV
11:00 - 11:30	Coffee break	
11:30 - 12:30	G. Ross (Oxford U.)	BSM after LHC 8 TeV
12:30 - 13:30	I. Antoniadis (École Polytechnique)	Introduction to Extra dimensions and Sting Phenomenology 1
13:30 - 16:00	Lunch break	
16:00 - 17:00	I. Antoniadis (École Polytechnique)	Introduction to Extra dimensions and Sting Phenomenology 2
Workshop talks		
17:00 - 17:30	Z. Lalak (Warsaw U.)	Stability of the Standard Model in the presence of gravity
17:30 - 18:00	S. Lola (U. Patras)	Flavour structure of R-Violating Operators and the LHC
18:00 - 18:20	Coffee break	
18:20 - 18:50	Discussion	
18:50 - 19:20	G. Perez (Weizmann Institute of Science)	Higgs and Flavor
19:20-19:35	P. Bandyopadhyay (INFN)	Higgs bosons: discovered and hidden, in extended supersymmetric standard models at the LHC
19:35-19:50	C. Kokorelis (NTUA & Greece Military Academy)	Gauge Unification from Split Supersymmetric String Models
19:50 - 20:05	S. Dittmeier (Heidelberg U.)	Readout via Flexprints for the Mu3e Experiment

Sunday Sept. 6th

Excursion

Monday Sept 7th

School lectures		
9:00 - 10:00	G. Martinelli (SISSA)	Unitarity fits: SM and search for New Physics
10:00 - 11:00	E. Ma (UC Riverside)	Neutrino theory 1: mass and interactions
11:00 - 11:30	Coffee break	
11:30 - 12:30	E. Ma (UC Riverside)	Neutrino theory 2: linkage and symmetries
12:30 - 13:30	L. Fayard (Orsay, LAL)	50 years of BEH boson search and the future 1
13:30 - 16:00	Lunch break	
16.00 - 17:00	L. Fayard (Orsay, LAL)	50 years of BEH boson search and the future 2
Workshop and student's talks		
17:00 - 17:30	G. Martinelli (SISSA)	Precision flavor physics with lattice QCD
17:30 - 18:00	G. Ross (Oxford U.)	Scanning as a solution to the hierarchy problem
18:00- 18:20	Coffee break	
18:20 - 18:50	Discussion	
Workshop talks		
18:50 - 19:30	J-M. Frere (U. Libre de	Are Neutrinos different?
19:30-19:45	C. Markou (LPTHE, UPMC)	The coupling of non-linear Supersymmetry to Supergravity
19:45 - 20:00	A. Karam (Ioannina U.)	Dark matter and neutrino masses from a scale-invariant multi-Higgs portal

Tuesday Sept 8th

School lectures		
9:00 - 10:00	J. Espinosa (IFAE & ICREA Barcelona)	Higgs Effective Field Theory
10:00 - 11:00	J.P. Derendinger (Bern U.)	SUSY/SUGRA 1
11:00 - 11:30	Coffee break	
11:30 - 12:30	J.P. Derendinger (Bern U.)	SUSY/SUGRA 2
Workshop and student's talks		
12:30 - 13:00	G. Marchiori (LPNHE Paris)	Higgs@ATLAS
13:00 - 13:30	L. Kashif (University of Wisconsin)	Searches for dark matter in ATLAS
13:30 - 16:00	Lunch break	
16:00 - 16:30	F. Botella (U. Valencia/IFIC)	Flavour changing Higgs processes in some two Higgs doublet models
16:30 - 17:00	Ghilenca (IFIN-HH, Bucharest & CERN)	A manifestly scale-invariant regularization and quantum effective operators
17:00 - 17:30	M. Olechowski (University of Warsaw)	Neutralino blind spots in NMSSM with light singlet scalar
17:30 - 18:00	S. Kabana (SUBATECH, Nantes)	Heavy Ion physics at RHIC and LHC
18:00 - 18:20	Coffee break	
18:20 - 18:50	Discussion	

20.00 Conference Dinner /Greek Night

Wednesday Sept 9th

School lectures		
9:00 - 10:00	E. Kiritsis (Crete Center for Theoretical Physics)	Introduction to String Theory 1
10:00 - 11:00	A. Starinets (Oxford U.)	Introduction to Gauge/Gravity Duality and applications
11:00 - 11:30	Coffee break	
11:30 - 12:30	A. Starinets (Oxford U.)	Introduction to Gauge/Gravity Duality and applications
12:30 - 13:30	E. Kiritsis (Crete Center for Theoretical Physics)	Introduction to String Theory 2
13:30 - 16:00	Lunch break	
Workshop and student's talks		
16:00 - 16:30	P. Osland (Bergen U.)	CP Violation in the scalar sector
16:30 - 17:00	K. Sliwa (Tufts University)	Top physics in ATLAS
17:00 - 17:30	M. Krawczyk (Warsaw U.) D.	The Inert Dark Matter at the LHC
17:30 - 17:45	T. Enomoto (Osaka U.)	Limit on 2HDM with natural flavor conservation from flavor observables
17:45 - 18:00	M. Pierre (Orsay)	dark matter in Z' extensions of the Standard Model
18:00 - 18:20	Coffee break	
18:20 - 18:50	Discussion	
Workshop talks		
18:50 - 19:20	W. Chung (Institute for Basic Science, S. Korea)	CULTASK, The Coldest Axion Experiment at CAPP/IBS in Korea
19:20-19:35	H. W. Themann (Center for Axion and Precision Physics)	AXION Dark Matter Search at CAPP
19:35-19:50	J. C. Vasquez Carmona (SISSA and ICTP)	Right-Handed lepton mixings at the LHC

Thursday Sept 10th

School lectures		
9:00 - 10:00	A. Blondel (U. Geneva)	Physics at the FCC
10:00 - 11:00	T. Behnke (DESY)	ILC
11:00 - 11:30	Coffee break	
11:30 - 12:30	G. Lazarides (Aristotle U., Thessaloniki)	Introduction to Cosmology 1
12:30 - 13:30	L. Covi (Gottingen U.)	Astroparticle Physics 1
13:30 - 16:00	Lunch break	
16.00 - 17:00	D. Autiero (Inst. Physique Nucleaire, Lyon)	Neutrinos (experimental)
Workshop and student's talks		
17:00 - 17:30	M. Martinez Perez (ICREA/IFAE-Barcelona)	Beyond-the-Standard-Model searches in ATLAS
17:30 - 18:00	I. Dorsner (U. Split, Croacia)	Scalar leptoquarks at LHC
18:00 - 18:20	Coffee break	
18:20 - 18:50	Discussion	
18:50 - 19:05	J. A. Yepes (Kavli Inst. for	Spin-1 resonance in a non-linear dynamical Higgs
19:05-19:20	A. Manning (Sydney U.)	Baryogenesis as a Quantum Fluctuation
19:20 - 19:35	M. Bures (Masaryk U. Brno)	Stability and energy spectrum of the hydrogen atom in space with a compactified extra dimension and potential

Friday Sept 11th

School lecture		
9:00 - 10:00	G. Lazarides (Aristotle U., Thessaloniki)	Introduction to Cosmology 2
Workshop and student's talks		
10:00 - 10:15	C. Ecker (TU Wien)	Holographic Entanglement Entropy from Numerical Relativity
10:15 - 10:30	Coffee break	
School lecture		
10:30 - 11:30	L. Covi (Gottingen U.)	Astroparticle Physics 2
Workshop talks		
11:30 - 12:30	H.B. Nielsen (Niels Bohr Institute)	Prediction of some deviation in Higgs production and decay to gammas from pure Standard Model (due to

Closing!