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# Corfu Summer School on Standard Model and Beyond - Standard Cosmology

(1<sup>st</sup> week, 31<sup>st</sup> August - 6<sup>th</sup> September 2009)

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## Monday 31st Aug

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<b>School</b>		
09.00 - 10.00	Electroweak SM I	G. Passarino
10.00 - 11.00	Deep Inelastic Scattering and the Parton Model	J. Stirling
11.00 - 11.30	Coffee Break	
11.30 - 12.30	Perturbative QCD I	Ch. Anastasiou
12.30 - 13.30	The LHC Project I	P. Jenni
13.30 - 16.00	Lunch Break	
16.00 - 17.00	Electroweak SM II	G. Passarino
17.00 - 18.00	Perturbative QCD II	Ch. Anastasiou
18.00 - 18.30	Coffee Break	
18.30 - 19.30	The LHC Project II	P. Jenni
<b>Workshop</b>		
19.30 - 20.00	Feynman-diagram calculation with FeyArts and FormCalc	T. Hahn
20.00 - 20.30	Recent Developments in automated NLO calculations	G. Bevilacqua

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## Tuesday 1st September

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<b>School</b>		
09.00 - 10.00	Electroweak SM III	G. Passarino
10.00 - 11.00	ATLAS Physics Programme	I. Wingerter-Seez
11.00 - 11.30	Break	
11.30 - 12.30	CMS Physics Programme	A. De Roeck
12.30 - 13.30	LHCb Physics Programme	M. Pepe-Altarelli
13.30 - 16.00	Lunch Break	
<b>Workshop</b>		
16.00 - 16.45	The EW symmetry breaking riddle	G. Altarelli
16.45 - 17.15	ATLAS Higgs Searches	I. Wingerter-Seez
17.15 - 17.45	CMS Higgs Searches	A. De Roeck
17.45 - 18.15	Aspects of Higgs boson Physics beyond SM in Colliders	J. Sola
18.15 - 18.40	Break	
18.40 - 19.00	Lepton Flavour violation in Little Higgs New results on 2HDM Models	J. I. Illana
19.00 - 19.30	New results on 2HDM	M. Krawczyk
19.30 - 20.00	A Minimal $S_3$ -Invariant Extension of the Standard Model	A. Mondragon
20.00 - 20.30	A Bayesian approach to Supersymmetry	R. Trotta

	phenomenology	
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## Wednesday 2nd September

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<b>School</b>		
09.00 - 10.00	Flavour Physics	G. Branco
10.00 - 11.00	Lattice QCD Phenomenology	A. Vladikas
11.00 - 11.30	Coffee Break	
11.30 - 12.30	Neutrino Physics	F. del Aguila
12.30 - 13.30	Introduction to Supersymmetry	A. Lahanas
13.30 - 16.00	Lunch Break	
<b>Workshop</b>		
16.00 - 16.30	Minimal Flavour Seesaw models	B. Gavela
16.30 - 17.00	Search for new physics in charm processes	S. Fajfer
17.00 - 17.30	Flavor mixing, neutrino masses and neutrino oscillations	H. Fritzsch
17.30 - 18.00	Scalar gluons and Dirac gluinos at the LHC	J. Kalinowski
18.00 -	Break	

18.30		
18.30 - 19.00	Probing CP Violation with Momentum Reconstruction at the LHC	K. Rolbiecki
19.00 - 19.30	Leptogenesis and low energy leptonic physics	M. Rebelo
19.30 - 20.00	Neutrino properties from $E_6 \times SO(3)$	B. Stech
20.00 - 20.30	Heavy Quark limit of QCD, Isgur-Wise functions and the Lorentz group	L. Oliver

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## Thursday 3rd September

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<b>School</b>		
09.00 - 10.00	Flavour Physics	G. Branco
10.00 - 11.00	Neutrino Physics	F. del Aguila
11.00 - 11.30	Coffee Break	
11.30 - 12.30	ILC	T. Behnke
12.30 - 13.30	MSSM	A. Lahanas
13.30 - 16.00	Lunch Break	
<b>Workshop</b>		
16.00 - 16.45	Reheating Temperature in Gauge Mediation Models and Compressed Particle Spectrum	S. Pokorski

16.45 - 17.15	Role of flavour physics in the LHC era and new physics sensitivity of the decay $B \rightarrow K^* l^+ l^-$	T. Hurth
17.15 - 17.45	Flavour Physics in the Littlest Higgs Model with T-Parity. Effects in the K, B and D systems	S. Recksiegel
17.45 - 18.15	Conformal Symmetry and the SM	K. Meissner
18.15 - 18.45	Coffee Break	
18.45 - 19.15	Central Exclusive Production at the LHC and New Physics	R. Basu
19.10 - 19.45	Identifying new quarks and leptons at LHC the role of multi-lepton signals	J. A. Aguilar-Saavedra
19.45 - 20.15	Primordial perturbations from inflation	D. Langlois

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## Friday 4th September

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School		
09.00 - 10.00	Introduction to Supergravity	A. Lahanas
10.00 - 11.00	Cosmology I	S. Sarkar
11.00 - 11.30	Coffee Break	
11.30 - 12.30	Cosmology II	S. Sarkar

12.30 - 13.30	HERA Physics	C. Diaconu
13.30 - 16.00	Lunch Break	
<b>Workshop</b>		
16.00 - 16.45	New Physics at the LHC	J. Iliopoulos
16.45 - 17.15	CLIC	E. Tsesmelis
17.15 - 17.45	Asymptotic Helicity Conservation in SUSY	G. Gounaris
17.45 - 18.15	Loop calculations in MSSM	H. Eberl
18.15 - 18.45	Coffee Break	
18.45 - 19.15	Electroweak corrections to tri- boson production at the ILC	D. N. Le
19.15 - 19.45	Axino and decaying dark matter	J. E. Kim
19.45 - 20.15	Tracking Quintessence, WIMP Relic Density, PAMELA and Fermi LAT	C. Pallis

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**Saturday 5th September**

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<b>School</b>
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09.00 - 10.00	Tevatron	A. Savoy-Navarro
10.00 - 11.00	Theory + LHC	G. Ross
11.00 - 11.30	Coffee Break	
11.30 - 12.30	Theory + LHC	G. Ross
12.30 - 13.30	LHC Upgrade	E. Tsesmelis
13.30 - 16.00	Lunch Break	
<b>Workshop</b>		
16.00 - 16.30	Heavy Flavour Physics	A. Savoy-Navarro
16.30 - 17.00	Standard Model precision measurements and Top Physics at Tevatron	A. Savoy-Navarro
17.00 - 17.30	Eternity and the cosmological constant	E. Alvarez
17.30 - 18.00	Inhomogeneities and cosmological expansion	N. Tetradis
18.00 - 18.30	Coffee Break	
18.30 - 19.00	Naïve Approach to the Little Hierarchy Problem	B. Grzadkowski
19.00 - 19.30	Finite $SU(3)^3$ Model	M. Mondragon
19.30 - 20.00	Effective Actions of Anomalous Abelian Model	C. Coriano
20.00 - 20.30	Anomaly free constraints in neutrino seesaw models	D. Emmanuel - Costa