

Cosmology, Astrophysics, Theory and Collider Higgs 2024 (CATCH22+2)

Wednesday, 1 May 2024

Talks (09:00 - 10:20)

time	[id] title	presenter
09:00	[109] History of DIAS	Dr MEEHAN, Eucharia
09:10	[105] Ireland @ CERN	Prof. RYAN, Sinead
09:20	[61] Searches for additional low-mass Higgs bosons at the LHC	GASCON-SHOTKIN, Susan
09:40	[90] Testing the Electroweak Theory with multi-boson polarization measurements	MANJARRES, Joany
10:00	[94] Diphoton jet signals from light fermiophobic Higgs boson at the HL-LHC	Prof. SONG, Jeonghyeon

Talks (11:00 - 12:40)

time	[id] title	presenter
11:00	[46] Cosmic Matter-Antimatter Separation and Sterile Neutrino Dark Matter	Prof. SHAPOSHNIKOV, Mikhail
11:20	[62] Two ideas in dark matter model building	Prof. VOLKAS, Raymond
11:40	[47] Light from darkness : history of a hot dark sector	TYTGAT, Michel
12:00	[91] Collider-cosmology synergy for strong dynamics signals	DE CURTIS, Stefania
12:20	[80] Precise Predictions and New Insights for the Migdal Effect	Prof. DOLAN, Matthew

Talks (14:20 - 16:00)

time	[id] title	presenter
14:20	[71] Astrophysical Probes of Self-Interacting Dark Matter	JELTEMA, Tesla
14:40	[54] Status and Future Prospects of the search for Dark Matter Annual Modulation in NaI	MARTINEZ, Maria
15:00	[27] Light vector mediators at direct detection experiments	Dr DE ROMERI, Valentina
15:20	[13] The Euclid mission: scientific forecast, overview and status	PADILLA ARANDA, Cristobal
15:40	[2] Sub-GeV Dark Matter Searches with QUEST-DMC	DARVISHI, Neda

Talks (16:30 - 18:30)

time	[id] title	presenter
16:30	[100] Classes of complete dark photon models constrained by Z-Physics	HABER, Howard HABER, Howard
16:50	[70] Exclusion bounds for Z' bosons	PÉLI, Zoltán
17:10	[16] Tri-unification: a separate $SU(5)$ for each fermion family	VICENTE, Avelino

17:30	[17] Lepton-flavour-violating constraints from triality	LICHTENSTEIN, Gabriela
17:50	[9] Precision Neutrino DIS at CERN's Forward Physics Facility (and Beyond)	RUIZ, Richard

Thursday, 2 May 2024

Talks (09:00 - 10:20)

time	[id] title	presenter
09:00	[77] BSM at FCC	AZZI, Patrizia
09:20	[67] Higgs+DM searches in CMS	CALDERON TAZON, Alicia
09:40	[53] Searches for Higgs boson pair production at ATLAS	SCHAARSCHMIDT, Jana
10:00	[108] Constraints and probes of dark matter objects	Dr CROON, Djuna

Talks (11:00 - 12:40)

time	[id] title	presenter
11:00	[25] Can the QCD axion feed a dark energy component?	NARDI, Enrico
11:20	[37] Connecting the baryons to the dark matter of the Universe	IBARRA, Alejandro
11:40	[64] CP violation with ALPs and with singlet scalars	Prof. GAVELA, Belen
12:00	[59] Back to the phase space: thermal axions	D'ERAMO, Francesco
12:20	[30] Photo production from anomaly terms in supernovae and neutron stars	VANVLASSELAER, Miguel

Talks (14:15 - 16:00)

time	[id] title	presenter
14:15	[63] Applications of the Tunneling Potential Formalism	ESPINOSA SEDANO, Jose Ramon
14:35	[101] Bubble nucleation for cosmological phase transitions	Dr GOULD, Oliver
14:55	[51] Criterion for ultra-fast bubble walls: the impact of hydrodynamic obstruction	NAGELS, Xander
15:15	[49] Search for cosmological phase transitions through their gravitational wave signals	Dr LEWICKI, Marek
15:35	[34] PRyMordial: The first minutes of the universe, computed in seconds	BURNS, Anne-Katherine

Talks (16:30 - 17:30)

time	[id] title	presenter
16:30	[97] Stochastic effective theory for scalar fields in de Sitter spacetime	Prof. RAJANTIE, Arttu
16:50	[36] Cosmic Axiverse Background	DESSERT, Chris
17:10	[55] Contributions to N_{eff} from freeze-in production of light relics	Dr STENGEL, Patrick

Friday, 3 May 2024

Talks (10:00 - 11:20)

time	[id] title	presenter
10:00	[81] How Viable Is Electroweak Baryogenesis ?	RAMSEY-MUSOLF, Michael RAMSEY-MUSOLF, Michael
10:20	[38] Gravitational Waves as Probes of New Physics	KING, Stephen Frederick
10:40	[14] Probing first-order phase transitions at LISA	NARDINI, Germano
11:00	[69] Transport equations for electroweak baryogenesis	KAINULAINEN, Kimmo Juhani

Talks (11:50 - 13:20)

time	[id] title	presenter
11:50	[74] Gamma-ray Astronomy: a Unique Probe of the Universe	Prof. CHADWICK, Paula
12:10	[6] Neutron stars as a laboratory for particle and nuclear physics	Prof. VUORINEN, Aleksi
12:30	[45] Chasing dark matter with pulsar experiments	PORAYKO, Nataliya
12:50	[58] Axion screening of the CMB	MONDINO, Cristina
13:10	[115] History of Dunsink	Prof. GALLAGHER, Peter

Talks (14:40 - 16:20)

time	[id] title	presenter
14:40	[52] Sourcing electroweak baryogenesis	POSTMA, Marieke
15:00	[35] Exploring loop-induced first order electroweak phase transition in the Higgs effective field theory	Prof. KANEMURA, Shinya
15:20	[28] Signs for a FOEWPT at the LHC?!	HEINEMEYER, Sven
15:40	[8] First-order electroweak phase transition in the SMEFT	ENBERG, Rikard
16:00	[41] Baryogenesis from transient CP violation in the early Universe	NO, Jose Miguel

Talks (16:50 - 18:30)

time	[id] title	presenter
17:30	[33] Hierarchies and conformal UV completions	Prof. LINDNER, Manfred
17:50	[86] Coherent Elastic neutrino-Nucleus Scattering with directional detectors	ARISTIZABAL, Diego
18:10	[43] Constraining BSM neutrino physics with CEvNS	Dr TÓRTOLA, Mariam

Saturday, 4 May 2024

Talks (09:00 - 10:40)

time	[id] title	presenter
09:00	[83] Dark branes for PTA signal and dark matter	QUIROS CARCELEN, Mariano
09:20	[29] Pair production of Higgs Bosons at NLO	Dr SPIRA, Michael
09:40	[40] Precision Calculations in the Next-to-Minimal Supersymmetric Standard Model (NMSSM) and Phenomenological Implications	MUHLLEITNER, Milada
10:00	[95] Entanglement in flavored scattering	Dr KOWALSKA, Kamila
10:20	[65] Aspects of Models with Vector-like Quarks	Prof. BRANCO, Gustavo

Talks (11:00 - 13:00)

time	[id] title	presenter
11:00	[19] Phenomenological aspects of flavour (and CP) symmetries	HAGEDORN, Claudia
11:20	[39] Natural Alignment and CP Violation Beyond the Standard Model	Prof. PILAFTSIS, Apostolos
11:40	[1] Properties of the Weinberg 3HDM potential	OSLAND, Per
12:00	[50] Complex S3-symmetric 3HDM	REBELO, M. N.
12:20	[92] Semisymmetries in 2HDM	GRZADKOWSKI, Bohdan
12:40	[20] Cutting rules and unitarity constraints for CP asymmetric processes	Dr MATAK, Peter

Talks (14:30 - 16:20)

time	[id] title	presenter
14:30	[84] QCD Baryogenesis	IPEK, Seyda
14:50	[85] Deconstructing Flavor: The Privately Democratic Higgs	Prof. SHAH, Nausheen
15:10	[102] Flavor of a light charged Higgs	LOSADA, Marta
15:30	[88] SUSY searches at CMS	HEIKKILAE, Jaana

Talks (16:20 - 18:45)

time	[id] title	presenter
16:20	[22] Physics with singlets	ROBENS, Tania Natalie
16:40	[89] Composite 2HDM at the LHC: Single & Double Higgs	MORETTI, Stefano
17:00	[31] Quo Vadis DM?	DELGADO, Antonio
17:20	[103] The Fluctuating Spacetime of Dark Matter	DROR, Jeff
17:40	[48] Tracking Minima, Phase Transitions and Gravitational Waves with BSMPTv3	BIERMANN, Lisa

Sunday, 5 May 2024

Talks (09:00 - 10:20)

time	[id] title	presenter
09:00	[5] The Gravity of Particle Physics (Naturally)	BURGESS, Cliff
09:20	[32] The Primordial Black Holes Variations	PROFUMO, Stefano
09:40	[23] Primordial black holes from stochastic inflation	RÄSÄNEN, Syksy
10:00	[21] Searching new physics via features of the stochastic gravitational wave background	KUROYANAGI, Sachiko

Talks (11:00 - 12:40)

time	[id] title	presenter
11:00	[44] On the initial singularity and extendibility of flat quasi-de Sitter spacetimes	GESHNIZJANI, Ghazal
11:20	[96] Naturally small neutrino mass from asymptotic safety	SESSOLO, Enrico Maria SESSOLO, Enrico
11:40	[3] Imminent test of quantum gravity with gravitational waves	CALCAGNI, Gianluca
12:00	[11] test parity violation signal from stochastic gravitational wave background	Dr LIANG, qiuyue
12:20	[68] Freeze-in at stronger coupling and the highest temperature in the Universe	COSTA, Francesco

Talks (14:00 - 15:45)

time	[id] title	presenter
14:00	[57] Hide and seek: how PDFs can conceal new physics	MADIGAN, Maeve
14:20	[7] BSM parton showers in Herwig 7	MASOUMINIA, Aidin
14:40	[66] Impact of Loop Corrections to the Trilinear Higgs Couplings and Interference Effects on Experimental Limits	RADCHENKO SERDULA, Kateryna
15:00	[99] Indirect new physics constraints with 1,2 and 3 bosons	MIMASU, Ken MIMASU, Ken
15:20	[106] Review talk: state-of-the-art of the field	ELLIS, Jonathan R.