

APCTP-IBS-KISTI-NRF

# 2021 Après-LHC Physics Workshop @ Korea

3-5, August, 2021

Zoom (and Konkuk University, Seoul, Korea)

Timeline	Programme	Speakers and Titles
Day 1	3 August (Tue)	
0930-1000	Registration	
1000-1200	Session 1	Moderated by Sun Kun Oh
	1000-1030	Jihn E. Kim, SNU and Kyunghee University (김진의, 서울대 및 경희대) Blackhole Information
	1030-1100	Hyun-Chul Kim, Inha University (김현철, 인하대) Singly Heavy Baryons and Pion Mean Fields
	1100-1130	Youngjoon Kwon, Yonsei University (권영준, 연세대) Physics Highlights from Belle and Belle II
	1130-1200	Jong-Wan Lee, PNU (이종완, 부산대) Recent Progress in Lattice Calculations of Sp(4) Gauge Theories
1200-1300	Break for lunch	
1300-1500	Session 2	Moderated by Kang Sin Choi
	1300-1330	Jeonghyeong Song, Konkuk University (송정현, 건국대) Why Can an Electron-proton Collider Better Measure the Coupling between a Higgs Pair and a Gauge Boson Pair?
	1330-1400	Jeong Han Kim, CTPU (김정한, 순수물리이론 연구단) Cosmological Particle Productions and Pairwise Hotspots on the CMB
	1400-1430	Chang Sub Shin, IBS-CTPU (신창섭, 순수물리이론 연구단) Cooling of Young Neutron Stars and Dark Gauge Bosons
	1430-1500	Prasenjit Sanyal, APCTP Status of Charged Higgs in the Two Higgs Doublet Model at the LHC
1500-1500	Break for coffee	(nominal break)
1500-1700	Session 3	Moderated by Chang Sub Shin

1500-1530	Aoki Shuntaro, CAU Mixed Higgs- $R^2$ Inflation in Supergravity
1530-1600	Kang Sin Choi, Ewha Woman's University (최강신, 이화여대) Aligned Natural Inflation in String Theory
1600-1630	Wontae Kim, Sogang University (김원태, 서강대) Radiation of de Sitter Space in the Semiclassical Quantization
1630-1700	Pablo Soler Gomis, CTPU Gaugino Actions and Their Role in String Phenomenology

1730-2000	Banquet	La Goutte Please note that the banquet will either be strictly complied with the latest regulations and guidelines provided by KCDC or be cancelled
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## Day 2 4 August (Wed)

1000-1230	Session 4	Moderated by Sun Kun Oh
1000-1030		Jae Beom Park, Korea University (박재범, 고려대) Overview of Bottomonium Production in Heavy-ion Collisions at LHC
1030-1100		Hyunchul Kim, Chonnam National University (김현철, 전남대) Overview of the Analysis with Electroweak Probes in Heavy-ion Collisions with CMS
1100-1130		Jeungeun Lee, SNU (이정은, 서울대) TeV-scale BSM Searches in Leptonic Final States at CMS
1130-1200		Dongho Moon, Chonnam National University (문동호, 전남대) Overview of Charmonium Production in PbPb Collisions at CMS
1200-1230		Yongsun Kim, Sejong University (김용선, 세종대) Overview of Ultra-peripheral Collision at the LHC

## 1230-1300 Break for lunch

1300-1500	Session 5	Moderated by Jae-Weon Lee
1300-1330		Seongchan Park, Yonsei University (박성찬, 연세대) Cosmic-neutrino-boosted Dark Matter
1330-1400		Dong Woo Kang, KIAS (강동우, 고등과학원) Heavy Dark Matter through the Dilaton Portal
1400-1430		Hiroshi Okada, APCTP Explanation of Recent Anomalies and Dark Matter
1430-1500		Kenji Kadota, CTPU The Mixed Dark Matter Scenarios of Primordial Black Holes and WIMPs

1500-1500 Break for coffee (nominal break)

1500-1730 Session 6 Moderated by Kenji Kadota

- 1500-1530 Jae-Weon Lee, Jungwon University (이재원, 중원대)  
Satellite Galaxy Plane Mystery and Fuzzy Dark Matter
- 1530-1600 Jongkuk Kim, KIAS (김종국, 고등과학원)  
Dispersion of Neutrinos in a Dark Medium
- 1600-1630 Chang Hyon Ha, CAU (하창현, 중앙대)  
The Nal(Tl) Crystal Detector for Dark Matter Particles and Neutrinos
- 1630-1700 SungWoo Youn, CAPP (윤성우, 액시온 연구단)  
Dark Matter Axion Searches
- 1700-1730 Jong-Chul Park, CNU (박종철, 충남대)  
Light Dark Matter Searches at Neutrino Experiments

1800-2000 Dinner Geum Ha (金河)

Please note that the dinner will either be strictly complied with the latest regulations and guidelines provided by KCDC or be cancelled

Day 3 5 August (Thu)

1000-1200 Session 7 Moderated by Jeonghyeon Song

- 1000-1030 Kawamura Junichiro, CTPU  
More than Four Muon Signal from a Vector-like Lepton Decaying to a Muon-philic Z' Boson at the LHC
- 1030-1100 Adil Jueid, Konkuk University  
Phenomenology of the Minimal Dark-matter Models at the Large Hadron Collider and Beyond
- 1100-1130 Thomas Flacke, KIAS  
Run3 on the Horizon: Searching for Exotic States of Composite Higgs Models at the LHC
- 1130-1200 Zhu Bin, CAU  
Constraining Sub-GeV Dark Matter from Migdal and Boosted Effects

1200-1300 Break for lunch

1300-1500 Session 8 Moderated by Hwidong Yoo

- 1300-1330 Seon-Hee Seo, CUP (서선희, 지하실험연구단)  
Physics Program of the Large Liquid Scintillation Detector at Yemilab
- 1330-1400 Myeonghun Park, SNUT (박명훈, 서울과기대)

1400-1430	Deep Learned Event Variable for the Collider Phenomenology Kihyeon Cho, KISTI (조기현, 한국과학기술정보연구원)
1430-1500	The Remote Control Room for Collider Experiments Siyeon Kim, CAU (김시연, 중앙대) Neutron Study with DUNE Near Detector

1500-1500 Break for coffee (nominal break)

1500-1700 Session 9 Moderated by Seon-Hee Seo

1500-1530	Seung J Lee, Korea University (이승준, 고려대) Physics Opportunities at FCC
1530-1600	Seunghy Ha, Yonsei University (하승규, 연세대) Recent Dual-Readout Calorimeter R&D in Korea
1600-1630	Ian Watson, University of Seoul Recent ML Application
1630-1700	Hwidong Yoo, Yonsei University (유휘동, 연세대) Overview of Korea FCC Activities

1730-2000 Dinner Outback or Mad for Garlic or any other place  
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2000 Adjourn