

Lake Louise Winter Institute 2020



Report of Contributions

Contribution ID: **189**

Type: **not specified**

Recent results from the LHC

Monday 10 February 2020 08:30 (1 hour)

Presenter: MARTYNIUK, Alex (University College London)

Session Classification: Monday

Contribution ID: **190**

Type: **not specified**

Constraining the Higgs boson self-coupling at the ATLAS experiment

Monday 10 February 2020 09:30 (15 minutes)

Presenter: DI MICCO, Biagio (Universita' degli Studi di Roma Tre e Istituto Nazionale di Fisica Nucleare (INFN))

Session Classification: Monday

Contribution ID: **191**

Type: **not specified**

Search for rare and lepton flavor violating decays of the Higgs boson with the ATLAS detector

Monday 10 February 2020 09:45 (15 minutes)

Presenter: DRECHSLER, Eric (Simon Fraser University (CA))

Session Classification: Monday

Contribution ID: **192**

Type: **not specified**

ATLAS Searches for VV, VH and HH Resonances

Monday 10 February 2020 11:00 (15 minutes)

Presenter: BIESUZ, Nicolo Vladi

Session Classification: Monday

Contribution ID: **193**

Type: **not specified**

Searches for neutral heavy Higgs bosons in fermionic decays in CMS

Monday 10 February 2020 10:00 (15 minutes)

Presenter: VAGNERINI, Antonio (Deutsches Elektronen-Synchrotron (DE))

Session Classification: Monday

Contribution ID: **194**

Type: **not specified**

Searches for additional Higgs bosons in ATLAS

Monday 10 February 2020 10:15 (15 minutes)

Presenter: HAMANO, Kenji (University of Victoria (CA))

Session Classification: Monday

Contribution ID: **195**

Type: **not specified**

BSM physics review

Monday 10 February 2020 17:30 (1 hour)

Presenter: TOBIOKA, Kohsaku

Session Classification: Monday

Contribution ID: 196

Type: **not specified**

Searches for electroweak production of supersymmetric particles with the ATLAS detector

Monday 10 February 2020 18:30 (15 minutes)

Presenters: CHENG, Baduyo (IHEP); LONG, Jonathan (Univ. Illinois at Urbana Champaign (US))

Session Classification: Monday

Contribution ID: **197**

Type: **not specified**

Searches for strong production of supersymmetric particles with the ATLAS detector

Monday 10 February 2020 18:45 (15 minutes)

Presenter: LONG, Jonathan (Univ. Illinois at Urbana Champaign (US))

Session Classification: Monday

Contribution ID: **198**

Type: **not specified**

Search for new physics with disappearing tracks

Monday 10 February 2020 19:00 (15 minutes)

Presenter: HILL, Chris (Ohio State University (US))

Session Classification: Monday

Contribution ID: **199**

Type: **not specified**

Search for new heavy resonances in leptonic or hadronic final states with the ATLAS detector

Monday 10 February 2020 11:15 (15 minutes)

Presenter: FEICKERT, Matthew (Univ. Illinois at Urbana Champaign (US))

Session Classification: Monday

Contribution ID: **200**

Type: **not specified**

Excited Lepton Searches in CMS

Monday 10 February 2020 19:30 (15 minutes)

Presenter: ROEMER, Jonas Till (Rheinisch Westfaelische Tech. Hoch. (DE))

Session Classification: Monday

Contribution ID: **201**

Type: **not specified**

Measurements of vector-boson scattering and multiboson production with ATLAS

Presenter: GUO, Jun (Shanghai Jiao Tong University (CN))

Session Classification: Friday

Contribution ID: 202

Type: **not specified**

Performing precision measurements and new physics searches at the HL-LHC with the upgraded CMS Level-1 Trigger

Monday 10 February 2020 11:30 (15 minutes)

Presenter: SAFONOV, Alexei (Texas A & M University (US))

Session Classification: Monday

Contribution ID: 203

Type: **not specified**

Precision Timing with the CMS MIP Timing Detector

Session Classification: Monday

Contribution ID: **204**

Type: **not specified**

Flavor physics review

Tuesday 11 February 2020 08:30 (1 hour)

Presenter: WORMSER, Guy Henri Maurice (Centre National de la Recherche Scientifique (FR))

Session Classification: Tuesday

Contribution ID: 205

Type: **not specified**

Lepton Flavour Universality in b to sll decays at LHCb

Tuesday 11 February 2020 09:30 (15 minutes)

Presenter: MADDRELL-MANDER, Samuel William (University of Bristol (GB))

Session Classification: Tuesday

Contribution ID: 206

Type: **not specified**

Lepton Flavour Universality in $b \rightarrow c l \nu$ decays at LHCb

Tuesday 11 February 2020 09:45 (15 minutes)

Presenter: GIUGLIANO, Carmen (Universita e INFN, Ferrara (IT))

Session Classification: Tuesday

Contribution ID: 207

Type: **not specified**

Tau-mu lepton flavor universality in $Y(3S)$ decays at the Babar experiment”

Tuesday 11 February 2020 10:00 (15 minutes)

Presenter: SIBIDANOV, Alexei (Istituto Nazionale Fisica Nucleare (INFN)-Unknown-Unknown)

Session Classification: Tuesday

Contribution ID: **208**

Type: **not specified**

Determination of the CP-violating phase ϕ_{13} at LHCb

Tuesday 11 February 2020 10:15 (15 minutes)

Presenter: MUZZETTO, Piera (Universita e INFN, Cagliari (IT))

Session Classification: Tuesday

Contribution ID: **209**

Type: **not specified**

CP violation in beauty baryons at LHCb

Tuesday 11 February 2020 10:45 (15 minutes)

Presenter: SARPIS, Gediminas (University of Manchester (GB))

Session Classification: Tuesday

Contribution ID: 210

Type: **not specified**

Measurement of time-dependent CP violation in B^0 to $K_S K_S K_S$ decays at Belle

Tuesday 11 February 2020 11:00 (15 minutes)

Presenter: Mr KANG, Kookhyun (Kyungpook National University)

Session Classification: Tuesday

Contribution ID: 211

Type: **not specified**

New Result on D-Mixing and CP Violation from Belle

Tuesday 11 February 2020 11:15 (15 minutes)

Presenter: CINABRO, David

Session Classification: Tuesday

Contribution ID: 212

Type: **not specified**

Belle II Status and prospects

Friday 14 February 2020 11:05 (15 minutes)

Presenter: BILKA, Tadeas

Session Classification: Friday

Contribution ID: 213

Type: **not specified**

Semileptonic and leptonic B decays at Belle II

Tuesday 11 February 2020 11:30 (15 minutes)

Presenter: WARBURTON, Andreas (McGill University, (CA))

Session Classification: Tuesday

Contribution ID: 214

Type: **not specified**

Measurement of V_{cb} with semileptonic B_s decays at LHCb

Tuesday 11 February 2020 11:45 (15 minutes)

Presenter: MANUZZI, Daniele (Universita e INFN, Bologna (IT))

Session Classification: Tuesday

Contribution ID: 215

Type: **not specified**

Rare B decays at Belle II

Friday 14 February 2020 11:20 (15 minutes)

Presenter: CHANG, MING-CHUAN (FU JEN CATHOLIC UNIVERSITY)

Session Classification: Friday

Contribution ID: **216**

Type: **not specified**

Rare and forbidden decays of the D^0 meson

Friday 14 February 2020 11:35 (15 minutes)

Presenter: WILSON, Fergus (Science and Technology Facilities Council STFC (GB))

Session Classification: Friday

Contribution ID: 217

Type: **not specified**

Recent CMS results in heavy-flavor production and rare decays

Friday 14 February 2020 10:30 (20 minutes)

Presenter: LANDSBERG, Greg

Session Classification: Friday

Contribution ID: **218**

Type: **not specified**

Seeing the unseeable

Tuesday 11 February 2020 20:00 (1 hour)

Presenter: BRODERICK, Avery

Session Classification: Tuesday

Contribution ID: **219**

Type: **not specified**

Neutrino physics review

Wednesday 12 February 2020 08:30 (1 hour)

Presenter: HUBER, Patrick

Session Classification: Wednesday

Contribution ID: **220**

Type: **not specified**

Top quark physics

Friday 14 February 2020 08:30 (1 hour)

Presenter: MITOV, Alexander (University of Cambridge (GB))

Session Classification: Friday

Contribution ID: 221

Type: **not specified**

Highlights of top-quark pair-production cross-section measurements at ATLAS and measurement of tZq and $tt+\gamma$ production

Friday 14 February 2020 09:30 (15 minutes)

Presenter: FABBRI, Federica (University of Glasgow (GB))

Session Classification: Friday

Contribution ID: 222

Type: **not specified**

Highlights of top quark properties measurements with the ATLAS detector

Friday 14 February 2020 09:45 (15 minutes)

Presenter: BARTOS, Pavol (Comenius University (SK))

Session Classification: Friday

Contribution ID: 223

Type: **not specified**

Recents results from ATLAS in beauty and charm physics

Friday 14 February 2020 10:50 (15 minutes)

Presenter: KIRK, Julie (Science and Technology Facilities Council STFC (GB))

Session Classification: Friday

Contribution ID: 224

Type: **not specified**

Heavy ion physics review

Friday 14 February 2020 17:30 (1 hour)

Presenter: MCLERRAN, Larry (BNL)

Session Classification: Friday

Contribution ID: 225

Type: **not specified**

Results from PHENIX

Friday 14 February 2020 18:30 (15 minutes)

Presenter: FRANTZ, Justin Edward (Ohio University (US))

Session Classification: Friday

Contribution ID: 226

Type: **not specified**

New Features of the Neutron Electromagnetic Structure in the Electron-Positron Annihilation

Friday 14 February 2020 18:45 (15 minutes)

Presenter: AHMED, Samer (Helmholtz-Institut Mainz)

Session Classification: Friday

Contribution ID: 227

Type: **not specified**

Searching for Muon to electron conversion: The Mu2e experiment at Fermilab

Friday 14 February 2020 19:00 (15 minutes)

Presenter: BONVENTRE, Richard (Lawrence Berkeley National Laboratory)

Session Classification: Friday

Contribution ID: 228

Type: **not specified**

FASER experiment

Friday 14 February 2020 19:35 (20 minutes)

Presenter: SCHMIEDEN, Kristof (CERN)

Session Classification: Friday

Contribution ID: **229**

Type: **not specified**

Results from NA62

Friday 14 February 2020 19:15 (20 minutes)

Presenter: Dr SCHUCHMANN, Simone (Johannes Gutenberg Universitaet Mainz (DE))

Session Classification: Friday

Contribution ID: **230**

Type: **not specified**

Atom interferometry and precision physics

Thursday 13 February 2020 18:30 (1 hour)

Presenter: MÜLLER, Holger

Session Classification: Thursday

Contribution ID: 231

Type: **not specified**

Dark Matter review

Thursday 13 February 2020 09:30 (1 hour)

Presenter: KAHN, Yonatan (University of Illinois at Urbana-Champaign)

Session Classification: Thursday

Contribution ID: 232

Type: **not specified**

First results on DM searches at Belle II

Thursday 13 February 2020 10:45 (15 minutes)

Presenter: DE NUCCIO, Michael

Session Classification: Thursday

Contribution ID: 233

Type: **not specified**

Staying tuned for axion dark matter: ADMX Run-1B Results

Thursday 13 February 2020 11:00 (15 minutes)

Presenter: BARTRAM, Chelsea (Boston University)

Session Classification: Thursday

Contribution ID: 234

Type: **not specified**

SuperCDMS SNOLAB Experiment

Thursday 13 February 2020 11:15 (15 minutes)

The SuperCDMS SNOLAB experiment is designed to be a next generation dark matter direct detection experiment, following SuperCDMS Soudan. The experiment is currently under construction. The main science goal is to improve the sensitivity for dark matter particles with masses ≤ 10 GeV by at least one order of magnitude in cross section over current results from the SuperCDMS Soudan experiment. Two types of cryogenic detectors (HV and iZIP), with germanium and silicon as material, are used to measure the ionization and phonon signals from electron and nuclear recoils of the dark matter. In this talk, I will give a general introduction to the SuperCDMS SNOLAB Experiment, including its history and goals, detector apparatus, signal and background models, as well as the latest sensitivity projection studies and construction progress.

Presenter: ZHANG, Enze**Session Classification:** Thursday

Contribution ID: 236

Type: **not specified**

COSINE

Presenter: PRIHTIADI, Hafizh (Bandung Institute of Technology)

Session Classification: Thursday

Contribution ID: 238

Type: **not specified**

The dawn of PICO-40L

Thursday 13 February 2020 11:30 (15 minutes)

The PICO collaboration uses bubble chambers filled with superheated C3F8 as a target for dark matter detection. PICO-60, with a threshold of 2.45 keV, set the most stringent direct-detection constraint to date on the weakly interacting massive particle (WIMP)-proton spin-dependent cross section at $3.2 \times 10^{-41} \text{cm}^2$ for a 25 GeV WIMP [Phys. Rev. D100 022001 (2019)]. Its successor PICO-40L employs a “right-side-up” configuration of the detector, thereby eliminating the need for the previously used buffer liquid and enhancing its background rejection capability. PICO-40L also serves as a prototype for another next generation ton-scale chamber PICO-500 which will further explore the WIMP-nucleon parameter space. The commissioning of PICO-40L is nearly complete. Its upcoming run is expected to considerably improve on the previous limit.

Presenter: Mr TIWARI, Deepak (PICO, Université de Montréal)

Session Classification: Thursday

Contribution ID: **239**

Type: **not specified**

Borexino

Wednesday 12 February 2020 10:15 (15 minutes)

Presenter: DING, Xuefeng

Session Classification: Wednesday

Contribution ID: **240**

Type: **not specified**

Daya Bay

Wednesday 12 February 2020 09:30 (15 minutes)

Presenter: MARSHALL, Chris (University of Rochester)

Session Classification: Wednesday

Contribution ID: **241**

Type: **not specified**

JUNO

Wednesday 12 February 2020 09:45 (15 minutes)

Presenter: DING, Xuefeng

Session Classification: Wednesday

Contribution ID: 242

Type: **not specified**

Search for Sterile Neutrino Oscillations and Reactor Spectrum Measurements with PROSPECT

Wednesday 12 February 2020 10:00 (15 minutes)

Presenter: KYZYLOVA, Olga (Drexel University)

Session Classification: Wednesday

Contribution ID: 244

Type: **not specified**

NOvA

Wednesday 12 February 2020 17:45 (15 minutes)

Presenter: BACK, Ashley (Queen Mary, University of London)

Session Classification: Wednesday

Contribution ID: 245

Type: **not specified**

First results on ProtoDUNE-SP LArTPC performance from a test beam run at CERN

Wednesday 12 February 2020 11:45 (15 minutes)

Presenter: YANG, Tingjun (Fermi National Accelerator Lab. (US))

Session Classification: Wednesday

Contribution ID: 246

Type: **not specified**

The DUNE Experiment and its Physics Reach

Wednesday 12 February 2020 11:30 (15 minutes)

The Deep Underground Neutrino Experiment (DUNE) represents a bold step forward with a new detector technology and the ability to measure neutrinos using a broad-band neutrino beam. DUNE will consist of two massive detectors: one located at Fermilab in Illinois, and one located 1300 km away in South Dakota. DUNE offers a unique opportunity to measure the nature of the neutrino masses, quantify the matter-antimatter symmetry violation, and to potentially discover additional neutrinos. This talk gives an overview of the LBNF-DUNE facility with an emphasis on sensitivity to exotic signatures such as sterile neutrinos and non-standard interactions. The talk also gives an overview of planned Canadian contributions including the data acquisition system, the calibration system and beam line monitor.

Presenter: ILIC, Nikolina (Nikhef National institute for subatomic physics (NL))

Session Classification: Wednesday

Contribution ID: 247

Type: **not specified**

MicroBooNE overview/results

Wednesday 12 February 2020 18:00 (15 minutes)

Presenter: BERKMAN, Sophie (Fermi National Accelerator Laboratory)

Session Classification: Wednesday

Contribution ID: 248

Type: **not specified**

MicroBooNE cross section results

Wednesday 12 February 2020 18:30 (15 minutes)

Presenter: CHEN, Yifan (Universitaet Bern (CH))

Session Classification: Wednesday

Contribution ID: **249**

Type: **not specified**

T2K

Wednesday 12 February 2020 17:30 (15 minutes)

Presenter: HAMACHER-BAUMANN, Philip (RWTH Aachen University)

Session Classification: Wednesday

Contribution ID: 250

Type: **not specified**

New Results on the search for neutrinoless double beta decay in ^{130}Te from CUORE

Wednesday 12 February 2020 19:00 (15 minutes)

Presenter: WELLIVER, Bradford (Lawrence Berkeley National Laboratory)

Session Classification: Wednesday

Contribution ID: 251

Type: **not specified**

Majorana

Wednesday 12 February 2020 19:15 (15 minutes)

Presenter: CLARK, Morgan

Session Classification: Wednesday

Contribution ID: 254

Type: **not specified**

New results from IceCube

Wednesday 12 February 2020 10:45 (15 minutes)

Presenter: KOPPER, Claudio (University of Alberta)

Session Classification: Wednesday

Contribution ID: 255

Type: **not specified**

HyperK

Wednesday 12 February 2020 11:15 (15 minutes)

Presenter: Dr PAVIN, Matej (TRIUMF)

Session Classification: Wednesday

Contribution ID: 256

Type: **not specified**

KM3NeT: Opening a new window on the neutrino sky

Wednesday 12 February 2020 11:00 (15 minutes)

Presenter: LE BRETON, Rémy (APC)

Session Classification: Wednesday

Contribution ID: 258

Type: **not specified**

MicroBooNE BSM results/prospects

Wednesday 12 February 2020 18:15 (15 minutes)

Presenter: Dr CRESPO-ANADÓN, José I. (Columbia University)

Session Classification: Wednesday

Contribution ID: 260

Type: **not specified**

Search for BSM physics using challenging and long-lived signatures with the ATLAS detector

Monday 10 February 2020 19:15 (15 minutes)

Presenter: DALLAPICCOLA, Carlo (University of Massachusetts (US))

Session Classification: Monday

Contribution ID: **261**

Type: **not specified**

nEXO

Wednesday 12 February 2020 18:45 (15 minutes)

Presenter: CHAMBERS, Christopher

Session Classification: Wednesday

Contribution ID: 263

Type: **not specified**

ANNIE

Thursday 13 February 2020 09:00 (15 minutes)

Presenter: BACK, Ashley (Queen Mary, University of London)

Session Classification: Thursday

Contribution ID: 264

Type: **not specified**

The GERDA experiment, final phase

Thursday 13 February 2020 08:30 (15 minutes)

Presenter: SCHULZ, Oliver (MPI for Physics, Munich)

Session Classification: Thursday

Contribution ID: 265

Type: **not specified**

The Large Enriched Germanium Experiment for Neutrinoless double-beta Decay (LEGEND)

Thursday 13 February 2020 08:45 (15 minutes)

Presenter: OTHMAN, Gulden (University Of North Carolina)

Session Classification: Thursday

Contribution ID: 266

Type: **not specified**

The KATRIN experiment: An improved upper limit on the neutrino mass and future prospects

Thursday 13 February 2020 09:15 (15 minutes)

Presenter: BEHRENS, Jan D.

Session Classification: Thursday

Contribution ID: **267**

Type: **not specified**

DEAP-3600

Thursday 13 February 2020 17:45 (15 minutes)

Presenter: DAUGHERTY, Sean

Session Classification: Thursday

Contribution ID: 268

Type: **not specified**

Darkside

Presenter: WANG, Yi

Session Classification: Thursday

Contribution ID: **269**

Type: **not specified**

NEWS

Thursday 13 February 2020 18:00 (15 minutes)

Presenter: PIRO, Marie-Cécile (University of Alberta)

Session Classification: Thursday

Contribution ID: 270

Type: **not specified**

DAMIC: Search for Light Dark Matter with CCDs

Thursday 13 February 2020 18:15 (15 minutes)

Presenter: THOMAS, Ryan (University of Chicago)

Session Classification: Thursday