

New Physics Interpretations at the LHC 2

MICHIGAN STATE UNIVERSITY | **Department of Physics and Astronomy**



Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome to Argonne

Wednesday 5 April 2017 09:00 (5 minutes)

Presenter: WAGNER, El Carlos E.M. (University of Chicago)

Contribution ID: 2

Type: **not specified**

ATLAS searches for diboson resonances

Wednesday 5 April 2017 09:10 (20 minutes)

Presenter: FISHER, Wade Cameron (Michigan State University (US))

Contribution ID: 3

Type: **not specified**

Searches for Heavy Scalars at CMS

Wednesday 5 April 2017 09:40 (20 minutes)

Presenter: DAMGOV, Jordan (Texas Tech University (US))

Contribution ID: 4

Type: **not specified**

Heavy Extended Higgs Sectors

Presenter: THOMAS, Scott David (Rutgers, State Univ. of New Jersey (US))

Contribution ID: 5

Type: **not specified**

Coffee break

Contribution ID: 6

Type: **not specified**

Flavor perspective on heavy Higgs searches.

Friday 7 April 2017 14:20 (20 minutes)

Presenters: GORI, Stefania; GORI, Stefania; GORI, Stefania (Perimeter Institute/Cincinnati University); GORI, Stefania; GORI, stefania (sns)

Contribution ID: 7

Type: **not specified**

BSM benchmarks for the LHC

Wednesday 5 April 2017 11:30 (20 minutes)

Presenter: ROBENS, Tania Natalie (Technische Universitaet Dresden (DE))

Contribution ID: 8

Type: **not specified**

Latest SUSY results from CMS

Wednesday 5 April 2017 13:30 (20 minutes)

Presenter: WHITBECK, Andrew James (Fermi National Accelerator Lab. (US))

Contribution ID: 9

Type: **not specified**

Latest SUSY results from ATLAS

Wednesday 5 April 2017 14:00 (20 minutes)

Presenter: HOOBERMAN, Benjamin Henry (Univ. Illinois at Urbana-Champaign (US))

Contribution ID: **10**

Type: **not specified**

Where could the stop be hiding?

Wednesday 5 April 2017 14:30 (20 minutes)

Presenter: CHENG, Hsin-Chia (University of California, Davis)

Contribution ID: 11

Type: **not specified**

Hunting for An Extended Higgs Sector at Large Hadron Collider

Wednesday 5 April 2017 11:00 (20 minutes)

Presenter: LIU, Tao (The Hong Kong University of Science and Technology)

Contribution ID: 12

Type: **not specified**

Any SUSY after Moriond?

Wednesday 5 April 2017 15:50 (20 minutes)

Presenter: MONTEUX, Angelo (Rutgers University)

Contribution ID: 13

Type: **not specified**

Implications of Direct Detection Blind Spots at the LHC

Wednesday 5 April 2017 16:20 (20 minutes)

Presenter: HUANG, Peisi (University of Wisconsin-Madison (US))

Contribution ID: 14

Type: **not specified**

Latest 13 TeV ttH results from CMS using the 2016 dataset

Thursday 6 April 2017 09:00 (20 minutes)

Presenter: MUELLER, Charles Nicholas (University of Notre Dame (US))

Contribution ID: 15

Type: **not specified**

ATLAS measurements of H125 properties

Thursday 6 April 2017 09:30 (20 minutes)

Presenter: NEUBAUER, Mark (Univ. Illinois at Urbana-Champaign (US))

Contribution ID: **16**

Type: **not specified**

Latest Higgs Results from CMS

Thursday 6 April 2017 10:00 (20 minutes)

Presenter: KREIS, Ben (Fermi National Accelerator Lab. (US))

Contribution ID: 17

Type: **not specified**

Implications of h125 on the presence of additional scalars and their expected experimental signatures

Thursday 6 April 2017 11:20 (20 minutes)

Presenter: Dr SHAH, Nausheen (Wayne State University)

Contribution ID: **18**

Type: **not specified**

Higgs Bosons beyond the Higgs

Thursday 6 April 2017 10:50 (20 minutes)

Presenter: CARENA, Marcela (Fermilab)

Contribution ID: 19

Type: **not specified**

Higgs boson radiative decays

Thursday 6 April 2017 11:50 (20 minutes)

Presenter: HAN, Tao (University of Pittsburgh)

Contribution ID: 20

Type: **not specified**

ATLAS searches for exotic BSM physics + Two-jet resonances

Thursday 6 April 2017 13:50 (20 minutes)

Presenter: EDGAR, Ryan Christopher (University of Michigan (US))

Contribution ID: **21**

Type: **not specified**

CMS VLQ

Thursday 6 April 2017 14:20 (20 minutes)

Presenter: HOGAN, Julie (Brown University (US))

Contribution ID: 22

Type: **not specified**

dijet and boosted jet resonances (exp)

Thursday 6 April 2017 14:50 (20 minutes)

Presenter: DUARTE, Javier Mauricio (Fermi National Accelerator Lab. (US))

Contribution ID: 23

Type: **not specified**

Heavy Vector Resonances (theory)

Thursday 6 April 2017 15:40 (20 minutes)

Presenter: DOBRESCU, Bogdan (Fermilab)

Contribution ID: 24

Type: **not specified**

Flavor physics

Wednesday 5 April 2017 16:50 (20 minutes)

Presenter: GROSSMAN, Yuval (Cornell)

Contribution ID: 25

Type: **not specified**

LOOKING FOR THE WIMP NEXT DOOR

Thursday 6 April 2017 16:10 (20 minutes)

Presenters: SHELTON, Jessie (Yale University); SHELTON, Julia (Jessie) (Rutgers University)

Contribution ID: 26

Type: **not specified**

Bottom and Charm physics at CMS

Friday 7 April 2017 09:00 (20 minutes)

Presenter: YI, Kai (The University of Iowa (US))

Contribution ID: 27

Type: **not specified**

Latest Rumors on Rare B Decay Anomalies

Friday 7 April 2017 09:30 (20 minutes)

Presenters: ALTMANNSHOFER, Wolfgang (Fermilab); ALTMANNSHOFER, Wolfgang (University of Cincinnati)

Contribution ID: **28**

Type: **not specified**

Lepton flavor violation at high and low energies

Friday 7 April 2017 10:00 (20 minutes)

Presenter: PETROV, Alexey (Wayne State University)

Contribution ID: 29

Type: **not specified**

Composite Higgs Bosons and Heavy Vector Resonances

Friday 7 April 2017 10:50 (20 minutes)

Presenter: SIMMONS, Elizabeth (Michigan State University)

Contribution ID: **30**

Type: **not specified**

Jet Energy Correlations and the Identification of New Light Resonances

Friday 7 April 2017 11:20 (20 minutes)

Presenters: CHIVUKULA, R. Sekhar (Michigan State University); CHIVUKULA, R. Sekhar (Michigan State University)

Contribution ID: **31**

Type: **not specified**

Probing strongly coupled new physics at the LHC

Friday 7 April 2017 15:40 (20 minutes)

Presenters: WANG, LianTao (University of Chicago); WANG, Liantao (University of Chicago (US))

Contribution ID: **32**

Type: **not specified**

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Contribution ID: 33

Type: **not specified**

Expectations for and interpretations of LHC superpartner and Higgs data

Friday 7 April 2017 14:50 (20 minutes)

Presenter: KANE, Gordon (University of Michigan)

Contribution ID: **34**

Type: **not specified**

Neutral Naturalness: an Update

Friday 7 April 2017 17:40 (20 minutes)

Presenters: HARNIK, Roni (Fermilab); HARNIK, Roni (Fermilab)

Contribution ID: 35

Type: **not specified**

Searching for Dark Matter at Colliders

Friday 7 April 2017 11:50 (20 minutes)

Presenter: CREMONESI, Matteo (Fermi National Accelerator Lab. (US))

Contribution ID: **36**

Type: **not specified**

Higgs theory TBD

Presenter: ROBENS, Tania Natalie (Technische Universitaet Dresden (DE))

Contribution ID: 37

Type: **not specified**

TBD

Presenter: HUANG, Peisi (University of Wisconsin-Madison (US))

Contribution ID: **38**

Type: **not specified**

Modification of Higgs Couplings in Minimal Composite Models

Wednesday 5 April 2017 15:20 (20 minutes)

Presenter: LIU, Da (ITP, CAS/EPFL)

Contribution ID: **39**

Type: **not specified**

TBD

Presenter: ISMAIL, Ahmed (University of Pittsburgh)

Contribution ID: **40**

Type: **not specified**

TBD

Presenter: GAINER, James (University of Hawaii at Manoa)

Contribution ID: 41

Type: **not specified**

Toward explaining B Decay anomalies

Friday 7 April 2017 16:40 (20 minutes)

Presenter: Dr BHATTACHARYA, Bhubanjyoti (Wayne State University)

Contribution ID: 42

Type: **not specified**

MVA for Dark Matter at the LHC

Thursday 6 April 2017 16:40 (20 minutes)

Presenter: GAINER, James (University of Hawaii at Manoa)

Contribution ID: 43

Type: **not specified**

Electroweak Searches using Photon Final State Radiation

Friday 7 April 2017 13:50 (20 minutes)

Presenter: ISMAIL, Ahmed (University of Pittsburgh)

Contribution ID: 44

Type: **not specified**

Light gluino window

Friday 7 April 2017 17:10 (20 minutes)

Presenter: MCKEEN, David (University of Pittsburgh)

Contribution ID: 45

Type: **not specified**

Hidden valley searches at the LHCb

Thursday 6 April 2017 17:10 (20 minutes)

Presenter: ZHAO, Yue

Contribution ID: 46

Type: **not specified**

Heavy Scalar searches in $t\bar{t}$ final states

Wednesday 5 April 2017 10:10 (20 minutes)

Presenter: LIU, Zhen (Fermilab)

Contribution ID: 47

Type: **not specified**

TBD

Presenter: HOWE, Kiel (Fermi National Accelerator Laboratory)

Contribution ID: 48

Type: **not specified**

Beyond Simplified Dark Matter Models

Friday 7 April 2017 16:10 (20 minutes)

The associated ZH production at LHC is one of the most prominent paths towards an accurate understanding of the Higgs boson couplings. We focus on invisible Higgs searches and show that loop-induced components for both the signal and background present phenomenologically relevant contributions to the H to invisible limits. In addition, we discuss the constraining power of this channel to Simplified Models for Dark Matter and gauge invariant completions, such as the Pseudoscalar Portal. Notably, we show that mono-Z searches provide competitive sensitivities to standard mono-jet analyses at 13 TeV LHC

Presenter: GONÇALVES, Dorival (University of Pittsburgh)

Contribution ID: 49

Type: **not specified**

The Vev Flip-Flop: Dark Matter Decay between Weak Scale Phase Transitions

Wednesday 5 April 2017 17:20 (20 minutes)

We discuss a new alternative to the Weakly Interacting Massive Particle (WIMP) paradigm for dark matter. Rather than being determined by thermal freeze-out, the dark matter abundance in this scenario is set by dark matter decay, which is allowed for a limited amount of time just before the electroweak phase transition. We discuss a concrete model which exhibits a “vev flip-flop” and show that it is phenomenologically successful in the most interesting regions of its parameter space. We comment on detection prospects, primarily at the LHC.

Presenter: BAKER, Michael (JGU Mainz)