

# **Spåtind 2016 - Nordic Conference on Particle Physics**

Saturday 2 January 2016 - Thursday 7 January 2016

Skeikampen, Norway

## **Book of Abstracts**



# Contents

Buses from Oslo to Skeikampen (time TBC, about 2pm) . . . . .	1
Bus from Skeikampen to Oslo (8:00) . . . . .	1
Welcome and reception . . . . .	1
Search for narrow resonances decaying to dijets in proton-proton collisions with the CMS detector at $\sqrt{s} = 13$ TeV . . . . .	1
Discovery strategies for new resonant and non-resonant phenomena with hadronic jets at the ATLAS detector . . . . .	1
Searches for Physics Beyond the Standard Model in Monojet Signatures with ATLAS . . .	1
Measuring Higgs properties in proton-proton collisions with the CMS experiment . . . .	1
Jet Fragmentation Transverse Momentum Distributions In Proton-Lead Collisions Measured By The ALICE Experiment At LHC . . . . .	2
Early atmospheric muon rejection with PINGU - the low energy extension to IceCube . .	2
Observational signatures of Higgs inflation . . . . .	2
Characterisation, plans and prospects of positronium formation in the AEGIS experiment	2
Study of antiproton annihilation in silicon with a hybrid pixel detector using the TimePix3 readout . . . . .	2
Plasmon mass in classical Yang-Mills theory . . . . .	2
Yang-Mills condensates in Cosmology . . . . .	3
Measuring pancakes in space . . . . .	3
Supersymmetry Searches with the ATLAS detector: Electroweak gauginos, sleptons and Dark Matter (aka SUSY around the corner) . . . . .	3
Search for new phenomena in the dilepton final state using proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector . . . . .	3
Search for new resonances in events with one lepton and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector . . . . .	3
Self-interacting dark matter and cosmology of a light scalar mediator . . . . .	3
Radiatively Induced Fermi Scale in Grand Unified Theories . . . . .	3

Dark matter seen from kimberlite pipes volcanoes . . . . .	4
ESSnuSB: an opportunity to measure the higher leptonic CP violation signal at the second oscillation maximum . . . . .	4
Wavelets . . . . .	4
Model Building in Grand Unified Theories . . . . .	4
An introduction to GAMBIT . . . . .	4
Trials factors and the significance of the diphoton mass peaks at 750 GeV seen by ATLAS and CMS in the 2015 data . . . . .	4
Physics of the Big bang lecture 1 . . . . .	5
Higgs precision measurements lecture 1 . . . . .	5
Dark matter detection 1 . . . . .	5
QCD / heavy ions 1 . . . . .	5
Physics of the Big Bang lecture 2 . . . . .	5
Dark Matter Detection lecture 2 . . . . .	5
Higgs Precision Measurements lecture 2 . . . . .	6
QCD, heavy ions lecture 2 . . . . .	6
Searches for BSM Physics lecture 1 . . . . .	6
Particle Physics Phenomenology lecture 1 . . . . .	6
Proton therapy . . . . .	6
Physics of the Big Bang, lecture 3 . . . . .	6
ESS / $n$ - $\bar{n}$ Oscillations . . . . .	6
Particle physics phenomenology lecture 2 . . . . .	7
Searches for BSM physics lecture 2 . . . . .	7
Conference dinner . . . . .	7
LHC discoveries and particle physics concepts for education . . . . .	7
Physics concepts and education related to LHC-physics seen by a high school teacher and masterclass author . . . . .	7

**0**

**Buses from Oslo to Skeikampen (time TBC, about 2pm)**

**1**

**Bus from Skeikampen to Oslo (8:00)**

**2**

**Welcome and reception**

**Contributed talks / 15**

**Search for narrow resonances decaying to dijets in proton-proton collisions with the CMS detector at  $\sqrt{s} = 13$  TeV**

**Corresponding Author:** [juska.pekkanen@cern.ch](mailto:juska.pekkanen@cern.ch)

**Contributed talks / 16**

**Discovery strategies for new resonant and non-resonant phenomena with hadronic jets at the ATLAS detector**

**Corresponding Author:** [caterina.doglioni@cern.ch](mailto:caterina.doglioni@cern.ch)

**Contributed talks / 17**

**Searches for Physics Beyond the Standard Model in Monojet Signatures with ATLAS**

**Corresponding Author:** [olof.lundberg@cern.ch](mailto:olof.lundberg@cern.ch)

**Contributed talks / 18**

**Measuring Higgs properties in proton-proton collisions with the CMS experiment**

**Corresponding Author:** jaana.kristiina.heikkilae@cern.ch

Contributed talks / 19

## **Jet Fragmentation Transverse Momentum Distributions In Proton-Lead Collisions Measured By The ALICE Experiment At LHC**

**Corresponding Author:** tomas.snellman@cern.ch

Contributed talks / 20

## **Early atmospheric muon rejection with PINGU - the low energy extension to IceCube**

**Corresponding Author:** tmx877@alumni.ku.dk

Contributed talks / 21

## **Observational signatures of Higgs inflation**

**Corresponding Author:** vera-maria.enckell@helsinki.fi

Contributed talks / 22

## **Characterisation, plans and prospects of positronium formation in the AEGIS experiment**

**Corresponding Author:** lillian.smestad@fys.uio.no

Contributed talks / 23

## **Study of antiproton annihilation in silicon with a hybrid pixel detector using the TimePix3 readout**

**Corresponding Author:** helga.holmestad@cern.ch

Contributed talks / 24

## **Plasmon mass in classical Yang-Mills theory**

**Corresponding Author:** jarkko.t.peuron@student.jyu.fi

Contributed talks / 25

## **Yang-Mills condensates in Cosmology**

Corresponding Author: roman.pasechnik@thep.lu.se

Contributed talks / 26

## **Measuring pancakes in space**

Corresponding Author: hansen@astro.ku.dk

Contributed talks / 27

## **Supersymmetry Searches with the ATLAS detector: Electroweak gauginos, sleptons and Dark Matter (aka SUSY around the corner)**

Corresponding Author: knut.oddvar.hoie.vadla@cern.ch

Contributed talks / 28

## **Search for new phenomena in the dilepton final state using proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector**

Corresponding Author: vanja.morisbak@cern.ch

Contributed talks / 29

## **Search for new resonances in events with one lepton and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector**

Corresponding Author: magnar.kopangen.bugge@cern.ch

Contributed talks / 30

## **Self-interacting dark matter and cosmology of a light scalar mediator**

Corresponding Author: ville.vaskonen@jyu.fi

**Contributed talks / 31**

## **Radiatively Induced Fermi Scale in Grand Unified Theories**

**Corresponding Author:** [alanne@cp3.sdu.dk](mailto:alanne@cp3.sdu.dk)

**Contributed talks / 32**

## **Dark matter seen from kimberlite pipes vulcanoes**

**Corresponding Author:** [hbech@nbi.dk](mailto:hbech@nbi.dk)

**Contributed talks / 34**

## **ESSnuSB: an opportunity to measure the higher leptonic CP violation signal at the second oscillation maximum**

**Corresponding Author:** [maja.britta.olvegaard@cern.ch](mailto:maja.britta.olvegaard@cern.ch)

**Contributed talks / 36**

## **Wavelets**

**Corresponding Author:** [freja.thoresen@cern.ch](mailto:freja.thoresen@cern.ch)

**Contributed talks / 37**

## **Model Building in Grand Unified Theories**

**Corresponding Author:** [t.e.gonzalo@fys.uio.no](mailto:t.e.gonzalo@fys.uio.no)

**Contributed talks / 38**

## **An introduction to GAMBIT**

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**Contributed talks / 39**

## **Trials factors and the significance of the diphoton mass peaks at 750 GeV seen by ATLAS and CMS in the 2015 data**

**Corresponding Author:** alexander.lincoln.read@cern.ch

Both ATLAS and CMS observed small deviations from the background expectation at 750 GeV in the diphoton mass spectrum of the proton-proton collision data collected during 2015. The calculation of the trials factors that account for the look - elsewhere effect will be discussed as will a “hallway-statistics” combination of the results.

**Invited talks / 41**

## **Physics of the Big bang lecture 1**

**Corresponding Author:** m.b.hindmarsh@sussex.ac.uk

**Invited talks / 42**

## **Higgs precision measurements lecture 1**

**Corresponding Author:** verkerke@nikhef.nl

**Invited talks / 43**

## **Dark matter detection 1**

**Corresponding Author:** stephen.west@rhul.ac.uk

**Invited talks / 44**

## **QCD / heavy ions 1**

**Corresponding Author:** rajuv@mac.com

**Invited talks / 45**

## **Physics of the Big Bang lecture 2**

**Corresponding Author:** m.b.hindmarsh@sussex.ac.uk

**Invited talks / 46**

## **Dark Matter Detection lecture 2**

**Corresponding Author:** stephen.west@rhul.ac.uk

**Invited talks / 47**

## **Higgs Precision Measurements lecture 2**

**Corresponding Author:** verkerke@nikhef.nl

**Invited talks / 48**

## **QCD, heavy ions lecture 2**

**Corresponding Author:** rajuv@mac.com

**Invited talks / 49**

## **Searches for BSM Physics lecture 1**

**Corresponding Author:** freya.blekman@cern.ch

**Invited talks / 50**

## **Particle Physics Phenomenology lecture 1**

**Corresponding Author:** m.frandsen1@physics.ox.ac.uk

**Invited talks / 51**

## **Proton therapy**

**Corresponding Author:** brandenburg@kvi.nl

**Invited talks / 52**

## **Physics of the Big Bang, lecture 3**

**Corresponding Author:** m.b.hindmarsh@sussex.ac.uk

**Invited talks / 53**

## **ESS / $n$ - $\bar{n}$ Oscillations**

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**Invited talks / 54**

## **Particle physics phenomenology lecture 2**

**Corresponding Author:** m.frandsen1@physics.ox.ac.uk

**Invited talks / 55**

## **Searches for BSM physics lecture 2**

**Corresponding Author:** freya.blekman@cern.ch

**56**

## **Conference dinner**

**Invited talks / 57**

## **LHC discoveries and particle physics concepts for education**

**Corresponding Author:** farid.ould-saada@fys.uio.no

**Invited talks / 58**

## **Physics concepts and education related to LHC-physics seen by a high school teacher and masterclass author**

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