

# Hadron Collider Physics Symposium 2012 - Contents

All the presentation slides can be found at <http://kds.kek.jp/categoryDisplay.py?categId=835>

## (Plenary) Opening session

**01001** Hadron Colliders and Hadron Collider Physics Symposium

Demitory Denisov

**01002** keynote talk: The View Ahead

Joseph Lykken

## (Plenary) Heavy-Ion and Soft-QCD session

**02001** Heavy-Ion Physics in a Nutshell

Tetsufumi Hirano

**02002** ALICE detector status and upgrade plans

Ken Oyama

**02003** ALICE Physics Summary

Roberto Preghenella

**02004** Soft-QCD at the LHC and the Tevatron

Craig Buttar

**02005** Summary of Physics Results from the TOTEM Experiment

Giuseppe Latino

**02006** Heavy-ion physics with ATLAS and CMS

Camelia Mironov

**02007** Heavy Ion results from RHIC-BNL

ShinIchi Esumi

## (Plenary) Heavy-Flavor session

**03001** LHCb detector status and upgrade

Oliver Callot

**03002** Selection of LHCb Physics Results

Burkhard Schmidt

**03003** New results on the search for  $B^0_s \rightarrow \mu^+ \mu^-$  from LHCb

Johannes Albrecht

**03004** CP Violation Studies in B Mesons

Mark R. J. Williams

**03005** Studies of rare B hadron decays to leptons at hadron colliders

Vincenzo Chiochia

**03006** Production of B

Pavel Řezníček

**03007** Charm at central collider detector(s)

Marco Rescigno

**03008** Flavor Physics Theory

Gino Isidori

### **(Plenary) Top-quark session (1/2)**

**04001** Measurements of the Top Quark Pair-Production Cross Section

Frank-Peter Schilling

**04002** Recent theoretical progress in top quark pair production at hadron colliders

Alexander Mitov

**04003** Top Mass Measurements at LHC and Tevatron

Enrique Palencia Cortezón

**04004** Single Top Physics at Hadron Colliders

Giorgio Chiarelli

### **(Plenary) Exotic session**

**05001** Exotic Resonance Searches at the LHC and the Tevatron

John Parsons

**05002** Non-Resonance Searches with Lepton

DongHee Kim

**05003** Searches for new physics at CMS and ATLAS without Leptons or Resonances

Daniel Duggan, Amitabh Lath

**05004** Exotics in a Higgs world

Christophe Grojean

### **(Plenary) QCD session**

**06001** Jet physics in hadronic collisions: theoretical remarks

Michelangelo L. Mangano

**06002** Jet production and properties

Jonathan Butterworth

**06003** HERA Results on proton's PDFs

Enrico Tassi

**06004** W and Z production in association with light and heavy-flavour jets at the LHC and the Tevatron

Monica Dunford

### **(Plenary) Top-quark session (2/2)**

**07001** Top quark properties and processes (beyond SM)

Jernej F. Kamenik

**07002** W helicity, top quark spin and charge

Elizaveta Shabalina

**07003** Exotic Top Production, Heavy Quark Searches, FCNC

Bernd Stelzer

**07004** Asymmetries in production of the top quark

Regina Demina

## **(Plenary) Electro-Weak session**

**08001** W/Z Boson Production and Mass

Oliver Stelzer-Chilton

**08002** Diboson production

Dave L. Evans

**08003** Electroweak Theory : Global-fit

Kaoru Hagiwara

**08004** Electroweak and Higgs boson production at the LHC

Achilleas Lazopoulos

## **(Plenary) Higgs session**

**09001** ATLAS Status Report on SM Higgs Searches / Measurements

Kevin Einsweiler

**09002** Latest on the Higgs from CMS

Christoph Paus

**09003** Standard Model Higgs Boson Searches at the Tevatron

Aurelio Juste

**09004** Theory Question for the Higgs Sector

Tilman Plehn

**09005** Searches for MSSM Higgs Bosons at ATLAS and CMS

Stan Lai

**09006** Non-SM Exotic Higgs: Beyond SM and MSSM

Stefano Lacaprara

## **(Plenary) SUSY session**

**10001** SUSY Searches with Missing- $E_T$

Brian Petersen

**10002** Searches for SUSY Signatures with Long-lived Particles at Hadron Colliders

Yunhe XIE

**10003** Search for Electroweak Production and Degenerated SUSY in Multi Lepton Final State

Richard C. Gray

**10004** SUSY vs LHC

Ryuichiro Kitano

## **(Plenary) Conclusion session**

- 11001** LHCf and connection to high energy cosmic rays  
Yoshitaka Itow
- 11002** SuperKEKB and SuperB: flavor physics  
Peter Križan
- 11003** Prospects for physics at high luminosity with CMS  
João Varela
- 11004** ATLAS Future Plans: Upgrade and the Physics with High Luminosity  
Srini Rajagopalan
- 11005** CERN Now and in the future  
Sergio Bertolucci
- 11006** Particle Physics Projects in Japan  
Atsuto Suzuki
- 11007** Hadron Collider Physics Symposium : Summary  
Michelangelo L. Mangano

## **(Parallel) Higgs**

- 12001** A new implementation of the NMSSM Higgs boson decays  
J. Baglio, T. N. Dao, R. Gröber, M. M. Mühlleitner, H. Rzehak, M. Spira, J. Streicher, K. Walz
- 12002** Non-bb Standard Model Higgs Searches at DZero  
Tim Scanlon
- 12003** Latest  $H \rightarrow WW^{(*)}$  Results from ATLAS  
Peter Onyisi
- 12004** Search for SM Higgs decaying to two W bosons at CMS  
Phillip R. Duerdo
- 12005** Search for the SM Higgs boson in the decay channel  $H \rightarrow ZZ^{(*)}$  in ATLAS  
Anthony Morley
- 12006** A Search for the Standard Model Higgs Boson Decaying to ZZ at CMS  
Alexey Drozdetskiy
- 12007** Search for the Higgs boson in the diphoton decay channel with ATLAS detector  
Marcos Jimenez Belenguer
- 12008** Search for the standard model Higgs boson decaying to two photons with CMS at the LHC  
Nancy Marinelli
- 12009** Search for Standard Model Higgs boson in  $H \rightarrow \tau^+\tau^-$  decay with the ATLAS detector  
Koji Nakamura
- 12010** Search for the SM Higgs Boson in Di- $\tau$  Final States at CMS  
Roger Wolf
- 12011** The search for the Standard Model Higgs boson produced in association with a vector boson and decaying to bottom quarks with the ATLAS detector  
Philip J. Clark
- 12012** Searches for Higgs bosons decaying to  $b\bar{b}$  in CMS  
Roberval Walsh
- 12013**  $H \rightarrow b\bar{b}$  from Tevatron  
Yuji Enari

**12014** Higgs Properties Measurement with the ATLAS Detector at the LHC

Haijun Yang

**12015** Characterization of the Higgs boson candidate at CMS

Marco Zanetti

### **(Parallel) Heavy-Flavor**

**13001** Rare B decays and CP-Violation in the B system with the ATLAS Detector

Patrick Jussel

**13002** Rare beauty and charm decays with the CMS experiment

Kai-Feng Chen

**13003** Rare beauty and charm decays at LHCb

Johannes Albrecht

**13004** New Physics constraints from rare  $b \rightarrow s + (\gamma, l^+l^-)$  decays

Christoph Bobeth

**13005** CP Violation in B Mixing and Decays

Mika Vesterinen

**13006** Measurements of the CKM angle  $\gamma$  in tree-dominated decays at LHCb

Stefania Ricciardi

**13007** B-hadrons & Heavy Quarkonium: Spectroscopy & Properties

Elif Asli Yetkin

**13008** b-quark and quarkonium production and polarisation

Vakhtang Kartvelishvili

**13009** Charm mixing at LHCb

Angelo Di Canto

**13010** Theory progress about CPV in the charm system

Satoshi Mishima

### **(Parallel) Electroweak**

**14001** Electroweak Boson Production at LHCb

Kurt Rinnert

**14002** W mass and Triple Gauge Couplings at Tevatron

Pierre Pétroff

**14003** NNLO mixed QCD-EW corrections to the Drell-Yan production of Z and W bosons

Zhaoting Pan

**14004** W/Z production/asymmetry

Gian Piero Di Giovanni

**14005** Polarisation of electroweak gauge bosons at the LHC

James Stirling, Eleni Vryonidou

**14006** Diboson productions and aTGCs search at LHC

Yusheng Wu

**14007**  $Q_T$  and  $\phi^*$  observables in Drell-Yan processes

Simone Marzani

**14008** Spin Properties in  $W \rightarrow \tau\nu$  events

Vadim Kostyukhin

**14009** BSM constraints from EW measurements

Celine Degrande

## **(Parallel) Super-Symmetry**

**15001** Rare B decays at LHCb

Thomas Blake

**15002** Search For New Physics at BABAR

Romulus Godang

**15003** CMS Multijet Searches for New Physics

Daniel Duggan

**15004** Search for heavy resonances, and resonant diboson production with the ATLAS detector

Noam Tal Hod

**15005** Searches for a  $W'$ , contact interactions and lepton resonances with CMS

Arnaud Gay

**15006** Searches for new physics with tau leptons at the ATLAS detector

Katharine J.C. Leney

**15007** Search for Multilepton Production at CMS

Matthew Hsing Hung Walker

**15008** Searches for direct supersymmetric gaugino and slepton pair production in final states with leptons with the ATLAS detector

Anders Floderus

**15009** Search for electroweak production of charginos, neutralinos and sleptons at CMS

Shruti Panwalkar

**15010** Search for SUSY in events with  $e$ ,  $\mu$  and  $\tau$  leptons at CMS

Elias Ron Alvarez

**15011** Searches for pair production of third generation squarks with the ATLAS detector

Thomas Barber

**15012** Searches for Top and Bottom Squarks in pp Collisions at  $\sqrt{s}=8\text{TeV}$

Benjamin Hooberman

**15013** Inclusive searches for squarks and gluinos with the ATLAS detector

Teng Jian Khoo

**15014** Search for SUSY in events with R-parity violation or long-lived particles at ATLAS

Shingo Kazama

**15015** Search for SUSY in final states with photons at CMS

Eleni Ntomari

**15016** Search for Exotic mono-jet and mono-photon signatures with the ATLAS detector

Reyhaneh Rezvani

**15017** LHC Signals of Pure Gravity Mediation

Brian Feldstein

**15018** Minimal dilaton model

Tomohiro Abe, Ryuichiro Kitano, Yasufumi Konishi, Kin-ya Oda, Joe Sato, Shohei Sugiyama

## **(Parallel) QCD**

- 16001** Diffractive and exclusive production at HERA and LHC  
Elisabetta Gallo
- 16002** Studies of soft QCD at LHCb  
Andrea Contu
- 16003** Soft particle production and energy flow at the LHC  
Benjamin Wynne
- 16004** Underlying events and Double Parton Scattering at LHC  
Kajari Mazumdar
- 16005** Jets at the LHC  
James Monk
- 16006** Latest Constraints from Jet Measurements on Parton Distribution Functions and on the Strong Coupling Constant  
Sebastian Naumann-Emme
- 16007** Production of W/Z in Association with Jets  
Shin-Shan Yu
- 16008** Production of W/Z in association with heavy flavor : Results from LHC and Tevatron  
James Mueller
- 16009** Prompt Photon Production at the Tevatron and LHC  
Ashish Kumar
- 16010** ALICE results on heavy-flavour and quarkonium production at the LHC  
Francesco Prino

## **(Parallel) Top quark**

- 17001** Monte Carlo event generators & the top quark forward-backward asymmetry  
Jan Winter, Peter Z. Skands, Bryan R. Webber
- 17002** Top pair production distributions at the Tevatron  
Yuji Takeuchi
- 17003** Top pair production at CMS (includes charge asymmetry and  $t\bar{t}$  resonance)  
Benjamin Klein
- 17004** Top pair production at ATLAS  
Andrey Loginov
- 17005** Top Forward-backward asymmetry at the Tevatron vs. Charge asymmetry at the LHC in chiral U(1) models with flavored Higgs fields  
Pyungwon Ko, Yuji Omura, Chaehyun Yu
- 17006** Top quark property at Tevatron  
Hyun Su Lee
- 17007** Top Polarization from Boosted Jet Substructure  
Biplob Bhattacharjee, Sourav K. Mandal, Mihoko Nojiri
- 17008** Measurement of the Top Quark Properties with the ATLAS Detector  
Stefan Guindon
- 17009** Top properties in  $t\bar{t}$  events at CMS (includes mass)  
Volker Adler

- 17010** Probing non-standard top-quark couplings via optimal-observable analyses at LHC  
Zenrō Hioki, Kazumasa Ohkuma
- 17011** Single top quark measurements with CMS  
Jeannine Wagner-Kuhr
- 17012** Single top-quark production measurements with ATLAS at the LHC  
Annick Lleres
- 17013** Top-antitop production in pbar-p collisions and search for physics beyond Standard Model  
Regina Demina
- 17014** Top-pair production in hadron collisions at NNLL  
M. Beneke, P. Falgari, S. Klein, J. Piclum, C. Schwinn, M. Ubiali, F. Yan

## Poster session

- 18001** Sensitivity of the LHC to Kaluza-Klein gluon in two b-jets decay channel  
Masato Arai, Gi-Chol Cho, Karel Smolek, Kyoko Yoneyama
- 18002** Lepton number violation at the LHC with leptoquarks and diquarks  
Hiroaki Sugiyama
- 18003** Production and decay of a heavy radion in Randall-Sundrum model at the LHC  
Yoshiko Ohno, Gi-Chol Cho
- 18004** Discrimination of models including  $H^{++}$  by using tau decay  
Koji TSUMURA
- 18005** Performance of HFGFlash at CMS  
Rahmat Rahmat
- 18006** Search for the direct production of top squark pairs with the CMS detector  
Nadja Strobbe
- 18007** Measurement of Jet Multiplicity Distributions in Top Quark Pair Events with Two Leptons in the Final State at a center of mass energy of 7 TeV  
Carmen Diez Pardos
- 18008** The first measurement of the cross section ratio  $\sigma(ttbb) / \sigma(ttjj)$  in pp Collisions at 7TeV  
Byoungsoon Lee
- 18009**  $\Lambda_b$  lifetime at CMS  
Frank Meier
- 18010** On the spin and parity of a single-produced resonance at the LHC  
Sara Bolognesi, Yanyan Gao, Andrei V. Gritsan, Kirill Melnikov, Markus Schulze, Nhan V. Tran, and Andrew Whitbeck
- 18011** Search for direct production of charginos and neutralinos in events with three leptons and missing transverse momentum in proton-proton collisions at the LHC with the ATLAS detector  
Samuel Burton King
- 18012** Searches for heavy long-lived sleptons and R-hadrons with the ATLAS detector  
Sascha Mehlhase
- 18013** Search for long-lived, heavy particles in final states with a muon and multi-track displaced vertex in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector  
Hyeon Jin Kim
- 18014** ATLAS Triggering on SUSY in 2012  
Anna Sfyrła



**18015** Search for R-parity Violating Decays of a tau sneutrino resonance in e-mu, e-tau and mu-tau final states in pp collisions at 7 TeV with the ATLAS detector

Minghui Liu

**18016** Update of the  $H \rightarrow WW^{(*)} \rightarrow e\nu\mu\nu$  analysis with  $13.0 \text{ fb}^{-1}$  of  $\sqrt{s} = 8 \text{ TeV}$  data collected with the ATLAS detector

Keisuke Yoshihara

**18017** Backgrounds in  $H \rightarrow WW^{(*)} \rightarrow \tau\tau$  with ATLAS

Tomo Lazovich

**18018** Search for a Higgs boson produced in the vector boson fusion process in the diphoton channel with the ATLAS experiment

Elisabeth Petit

**18019** Search for the Standard Model Higgs Boson in the  $H$  to  $\tau^+\tau^-$  Decay Mode with the ATLAS Detector

Geng-Yuan Jeng

**18020** Search for New Phenomena in the Dijet Mass Distribution updated using  $13.0 \text{ fb}^{-1}$  of pp Collisions at  $\sqrt{s} = 8 \text{ TeV}$  collected by the ATLAS Detector

Francesco Guescini

**18021** Search for Neutrino Mass Generation Mechanisms with the ATLAS detector

Kenji Hamano

**18022** Physics with Tau Lepton Final States in ATLAS

Almut M. Pingel

**18023** Track Reconstruction Efficiency in the ATLAS Inner detector

Kenji Hamano

**18024** Search for a SM Higgs boson in the  $H \rightarrow Z^*Z \rightarrow l^+l^-qq$  channel in the mass range 120 - 180 GeV with the ATLAS Detector at  $\sqrt{s} = 7 \text{ TeV}$

Giovanni Zurzolo

**18025** Reconstruction and Identification of Hadronically Decaying Tau Leptons at ATLAS

Tim Bristow

**18026** Search for long-lived neutral particle decays with first  $1.9 \text{ fb}^{-1}$  of 2011 data collected with the ATLAS detector at the LHC

Daniela Salvatore

**18027** Search for the Standard Model Higgs boson produced in association with a vector boson and decaying to bottom quarks with the ATLAS detector

Heather M. Gray, Tim Scanlon, Gabriel Facini

**18028** Performance of the ATLAS Tile Calorimeter

Shima Shimizu

**18029** Search for the standard model Higgs boson decaying to tau pairs produced in association with a W or Z boson

Abdollah Mohammadi

**18030** Associated Higgs production decaying into W bosons

Pere Kevin Rados