

**Second Workshop on Beyond 3  
Generation Standard Model –  
New Fermions at the  
Crossroads of Tevatron and  
LHC**

**Report of Contributions**

Contribution ID: 0

Type: **not specified**

## Opening

*Thursday, 14 January 2010 09:50 (10 minutes)*

**Session Classification:** Session I

Contribution ID: 1

Type: **not specified**

## **Summary of the Previous Workshop: the Four Statements**

*Thursday, 14 January 2010 10:00 (25 minutes)*

**Presenter:** Dr UNEL, Gokhan (U.C. Irvine)

**Session Classification:** Session I

Contribution ID: 2

Type: **not specified**

## **Highlights from Nagoya Strong Coupling Workshop or TBA**

**Presenter:** TENTATIVE

Contribution ID: 3

Type: **not specified**

## Approaching a strong fourth family

*Thursday, 14 January 2010 10:25 (25 minutes)*

**Presenter:** HOLDOM, Bob (University of Toronto)

**Session Classification:** Session I

Contribution ID: 4

Type: **not specified**

## **Four generations and precision constraints**

*Thursday, 14 January 2010 11:15 (25 minutes)*

**Presenter:** PLEHN, Tilman (Heidelberg University)

**Session Classification:** Session II

Contribution ID: 5

Type: **not specified**

## **Electroweak oblique parameter calculation tool and 4th generation**

*Thursday, 14 January 2010 11:40 (15 minutes)*

**Presenter:** OZCAN, Erkan (University College London)

**Session Classification:** Session II

Contribution ID: 6

Type: **not specified**

## Heavy leptons, EW precision tests, and technicolor

*Thursday, 14 January 2010 11:55 (20 minutes)*

**Presenter:** ANTIPIN, Oleg (Helsinki)

**Session Classification:** Session II



Contribution ID: 7

Type: **not specified**

## **Constraint on 4th Generation Leptons from Muon $g-2$**

*Thursday, 14 January 2010 12:15 (15 minutes)*

**Presenter:** LEE, Fei-Fan (NTU)

**Session Classification:** Session II

Contribution ID: 8

Type: **not specified**

## How much space is left for a new family of fermions?

*Thursday, 14 January 2010 14:00 (20 minutes)*

**Presenter:** LENZ, Alexander (Erlangen)

**Session Classification:** Session III

Contribution ID: 9

Type: **not specified**

## **Constraints on CKM matrix elements within a fourth generation**

*Thursday, 14 January 2010 14:20 (20 minutes)*

**Presenter:** Prof. LACKER, Heiko (Berlin, Humboldt University)

**Session Classification:** Session III

Contribution ID: **10**

Type: **not specified**

## **4th Generation and Top Partner Search at CDF**

*Thursday, 14 January 2010 14:40 (25 minutes)*

**Presenter:** WHITESON, Daniel (CDF/University of California, Irvine)

**Session Classification:** Session III

Contribution ID: 11

Type: **not specified**

## **Direct and Indirect Probes for New Heavy Fermions at D0**

*Thursday, 14 January 2010 15:05 (20 minutes)*

**Presenter:** NAGY, Elemer (D0/CPPM and Fermilab, talk given by Tulika Bose)

**Session Classification:** Session III

Contribution ID: 12

Type: **not specified**

## **Prospects for Searches for New Heavy Quarks with CMS**

*Thursday, 14 January 2010 16:00 (25 minutes)*

**Presenter:** BOSE, Tulika (CMS/Boston University)

**Session Classification:** Session IV

Contribution ID: 13

Type: **not specified**

## Search for 4th Generation Quarks at ATLAS

*Thursday, 14 January 2010 16:25 (20 minutes)*

**Presenter:** WHITESON, Daniel (Atlas/University of California, Irvine)

**Session Classification:** Session IV

Contribution ID: 14

Type: **not specified**

# NLO Single Top and Fourth Generation Quark Production

*Thursday, 14 January 2010 16:45 (20 minutes)*

**Presenter:** MALTONI, Fabio (Louvain, talk given by Tilman Plehn)

**Session Classification:** Session IV



Contribution ID: 15

Type: **not specified**

## **Collider signals of a composite Higgs in the SM4**

*Thursday, 14 January 2010 17:05 (20 minutes)*

**Presenter:** BAR-SHALOM, Shaoly (Technion)

**Session Classification:** Session IV

Contribution ID: 16

Type: **not specified**

## **A\_Kpi direct CPV difference, AFB in $B \rightarrow K^* l^+ l^-$ , and D mixing**

*Friday, 15 January 2010 09:30 (20 minutes)*

**Presenter:** Prof. LACKER, Heiko (BaBar/Berlin, Humboldt University)

**Session Classification:** Session V

Contribution ID: 17

Type: **not specified**

## **Acp(Kpi), A\_FB(K\*l+l-) and D0-mixing as probe of 4th Generation**

*Friday, 15 January 2010 09:50 (20 minutes)*

**Presenter:** NAKAO, Mikihiko (Belle/KEK)

**Session Classification:** Session V

Contribution ID: **18**

Type: **not specified**

## **B and K Physics in the scenario of one extra Fermion family**

*Friday, 15 January 2010 10:10 (20 minutes)*

**Presenter:** NANDI, Soumitra (University of Torino)

**Session Classification:** Session V

Contribution ID: 19

Type: **not specified**

## **Revisit of Flavor and CPV Data with Heavy $t'$ and $b'$**

*Friday, 15 January 2010 10:30 (15 minutes)*

**Presenter:** MA, Chien-Yi (NTU)

**Session Classification:** Session V

Contribution ID: 20

Type: **not specified**

## **Tagged Bs -> J/psi phi measurement of $\sin\phi_s$ etc.**

*Friday, 15 January 2010 11:10 (20 minutes)*

**Presenter:** ZIEMINSKA, Daria (D0/Indiana University)

**Session Classification:** Session VI

Contribution ID: 21

Type: **not specified**

## **Phi\_s, AFB(Kl), and D0-mixing as probes of 4th generation**

*Friday, 15 January 2010 11:30 (25 minutes)*

**Presenter:** PUNZI, Giovanni (CDF/FNAL)

**Session Classification:** Session VI

Contribution ID: 22

Type: **not specified**

## **Effects of a fourth generation on various observables in $b \rightarrow sl+l-$**

*Friday, 15 January 2010 11:55 (15 minutes)*

**Presenter:** BASHIRY, Vali (Cyprus International)

**Session Classification:** Session VI



Contribution ID: 23

Type: **not specified**

## **Prospects for CPV in Bs->J/psi phi and AFB(B -> K\*II)**

*Friday, 15 January 2010 12:10 (25 minutes)*

**Presenter:** MUSY, Marcus (LHCb/Barcelona)

**Session Classification:** Session VI

Contribution ID: 24

Type: **not specified**

## Discovering Wimpless dark matter through 4th generation quarks

*Friday, 15 January 2010 14:00 (20 minutes)*

**Presenter:** Dr ALWALL, Johan (SLAC)

**Session Classification:** Session VII

Contribution ID: 25

Type: **not specified**

## Overview on Vector-like Quarks

*Friday, 15 January 2010 14:20 (20 minutes)*

**Presenter:** BRANCO, Gustavo (Technical University of Lisbon)

**Session Classification:** Session VII

Contribution ID: 26

Type: **not specified**

## **Unitarity Violation, Bs mixing phase, visible $t \rightarrow cZ$ decay**

*Friday, 15 January 2010 14:40 (20 minutes)*

**Presenter:** NEBOT, Miguel (Valencia)

**Session Classification:** Session VII

Contribution ID: 27

Type: **not specified**

## **Search of new fermions with nonstandard couplings in ATLAS**

*Friday, 15 January 2010 15:00 (20 minutes)*

**Presenter:** OZCAN, Erkan (Atlas/University College London)

**Session Classification:** Session VII

Contribution ID: 28

Type: **not specified**

## **Renormalization Group Fixed Point with a Fourth Generation: Solution to the hierarchy problem and other implications**

*Friday, 15 January 2010 15:50 (25 minutes)*

**Presenter:** HUNG, PQ (Virginia)

**Session Classification:** Session VIII

Contribution ID: 29

Type: **not specified**

## **Strongly coupled fourth family and order of electroweak phase transition**

*Friday, 15 January 2010 16:15 (20 minutes)*

**Presenter:** KIKUKAWA, Yoshio (Tokyo)

**Session Classification:** Session VIII

Contribution ID: 30

Type: **not specified**

## **Dynamical Electroweak Symmetry Breaking, quark mass hierarchy, and Fourth Family**

*Friday, 15 January 2010 16:35 (20 minutes)*

**Presenter:** HASHIMOTO, Michio (KEK)

**Session Classification:** Session VIII



Contribution ID: 31

Type: **not specified**

## Forum: Higgs-Yukawa Model on a Lattice

Presentation given by Philipp Gerhold (20')

**Presenters:** SONI, Amarjit (BNL); LIN, David (NCTU); GERHOLD, Philipp (Humboldt); KIKUKAWA, Yoshio (Tokyo)

Contribution ID: 32

Type: **not specified**

## CP Violation in $b' \rightarrow s$ Decays

*Saturday, 16 January 2010 09:30 (20 minutes)*

**Presenter:** ARHRIB, Abdes (Tanger)

**Session Classification:** Session IX

Contribution ID: 33

Type: **not specified**

## **Leading CP Violation Effect with Four Generations**

*Saturday, 16 January 2010 09:50 (15 minutes)*

**Presenter:** SHEN, Chia-Hsien (NTU)

**Session Classification:** Session IX

Contribution ID: 34

Type: **not specified**

## **Forum: How can Super B factory pin down 4th generation parameters**

Super B/Belle II & Discussion

**Presenters:** Dr PAOLONI, Eugenio (Super B/Pisa); Prof. CHANG, Paoti (Belle II/National Taiwan University)

Contribution ID: 35

Type: **not specified**

## Summary: Highlights and Prospects

*Saturday, 16 January 2010 11:30 (35 minutes)*

**Presenter:** SONI, Amarjit (BNL)

**Session Classification:** Session X

Contribution ID: **36**

Type: **not specified**

## **Close out**

*Saturday, 16 January 2010 12:05 (10 minutes)*

**Session Classification:** Session X

Contribution ID: 37

Type: **not specified**

## Registration

Contribution ID: **38**

Type: **not specified**

## Introduction

*Friday, 15 January 2010 16:55 (20 minutes)*

**Presenter:** GERHOLD, Philipp (Humboldt)

**Session Classification:** Forum: Higgs-Yukawa Model on a Lattice



Contribution ID: 39

Type: **not specified**

## Forum

*Friday, 15 January 2010 17:15 (45 minutes)*

**Presenters:** SONI, Amarjit (BNL); LIN, David (NCTU); GERHOLD, Philipp (Humboldt); KIKUKAWA, Yoshio (Tokyo)

**Session Classification:** Forum: Higgs-Yukawa Model on a Lattice

Contribution ID: 40

Type: **not specified**

## Introduction

*Saturday, 16 January 2010 10:05 (20 minutes)*

**Presenters:** Dr PAOLONI, Eugenio (Super B/Pisa); Prof. CHANG, Paoti (Belle II/NTU)

**Session Classification:** Forum: How can Super B factory pin down 4th generation parameters

Contribution ID: 41

Type: **not specified**

## Forum

*Saturday, 16 January 2010 10:25 (40 minutes)*

**Presenters:** Dr PAOLONI, Eugenio (BaBar); PUNZI, Giovanni (FNAL); Prof. LACKER, Heiko (Berlin, Humboldt University); MUSY, Marcus (Barcelona); NAKAO, Mikihiro (KEK); Prof. CHANG, Paoti (National Taiwan University)

**Session Classification:** Forum: How can Super B factory pin down 4th generation parameters