

# **Flavour in the era of the LHC, 2nd meeting**

## **Report of Contributions**

Contribution ID: 0

Type: **not specified**

## **WG1**

*Wednesday, 8 February 2006 14:00 (45 minutes)*

**Session Classification:** Plenary

Contribution ID: 1

Type: **not specified**

## **WG2**

*Wednesday, 8 February 2006 15:15 (45 minutes)*

**Session Classification:** Plenary

Contribution ID: 2

Type: **not specified**

## **WG3**

*Wednesday, 8 February 2006 16:30 (45 minutes)*

**Presenter:** RAIDAL, Martti

**Session Classification:** Plenary

Contribution ID: 3

Type: **not specified**

## **Introduction**

*Monday, 6 February 2006 09:00 (20 minutes)*

**Presenter:** THE CONVENERS

**Session Classification:** WG1

Contribution ID: 4

Type: **not specified**

## **update on E6 Isosinglet quark studies**

*Monday, 6 February 2006 09:20 (20 minutes)*

**Presenter:** UNEL, G. (University of California)

**Session Classification:** WG1

Contribution ID: 6

Type: **not specified**

## Search for a light stop

**Presenter:** RAKLEV, A. (CERN)

Contribution ID: **11**

Type: **not specified**

## **Introduction**

*Monday, 6 February 2006 09:00 (10 minutes)*

**Presenter:** RAIDAL, Martti (NICPB)

**Session Classification:** WG3

Contribution ID: 12

Type: **not specified**

## **Flavour in Resonant Leptogenesis, LFV and EDMs**

*Monday, 6 February 2006 09:10 (40 minutes)*

**Presenter:** PILAFTSIS, Apostolos (CERN)

**Session Classification:** WG3

Contribution ID: 13

Type: **not specified**

## Neutron-electron EDM correlations in SUSY

*Monday, 6 February 2006 10:00 (20 minutes)*

In supersymmetry, EDMs of various systems, in particular neutrons and electrons, are correlated. Having observed one of them, one can make predictions for the others, based on the specific SUSY breaking scenario. For example, most SUSY models predict the neutron EDM/the electron EDM ratio to be of order 10. This can be viewed as an indirect signature of supersymmetry. Furthermore, large portions of parameter space accessible to EDM experiments are outside the reach of collider experiments, which makes them particularly interesting.

**Presenter:** LEBEDEV, Oleg (Bonn)**Session Classification:** WG3

Contribution ID: 15

Type: **not specified**

## **On Power and Complementarity of the Experimental Constraints on Seesaw Models**

*Monday, 6 February 2006 10:30 (20 minutes)*

By analysing the class of models based on a U(1) flavour symmetry, we analyse the impact that present lepton flavour and CP violation data - neutrino oscillations, baryon asymmetry of the universe, flavour violations in charged lepton decays and lepton electric dipole moments - have on supersymmetric seesaw theories.

**Presenter:** MASINA, Isabella (Rome)

**Session Classification:** WG3

Contribution ID: 16

Type: **not specified**

## **Strength and correlations of slepton flavour violation in SUSY seesaw models**

*Monday, 6 February 2006 11:30 (20 minutes)*

In the framework of SUSY seesaw models we calculate the LFV off-diagonal entries in the slepton mass matrix from the fundamental model parameters and study the correlations among different flavour channels.

**Presenter:** ALBINO, Simon (Würzburg)

**Session Classification:** WG3

Contribution ID: 17

Type: **not specified**

## **Lepton flavour violation in non-minimal supergravity**

*Monday, 6 February 2006 12:00 (20 minutes)*

**Presenter:** KING, Steve (Southampton)

**Session Classification:** WG3

Contribution ID: **18**

Type: **not specified**

## **Search for T-violation in tau decays at super tau/B factories**

*Monday, 6 February 2006 12:30 (20 minutes)*

**Presenter:** PAOLONI, Eugenio (BaBar)

**Session Classification:** WG3

Contribution ID: 20

Type: **not specified**

## Status and plans of tau- $\rightarrow$ 3mu at CMS

*Monday, 6 February 2006 14:30 (20 minutes)*

**Presenter:** GIFFELS, Manuel (RWTH Aachen)

**Session Classification:** WG3

Contribution ID: 21

Type: **not specified**

## **The see-saw mechanism, neutrino Yukawa couplings, LFV decays and leptogenesis**

*Monday, 6 February 2006 15:00 (20 minutes)*

**Presenter:** TAKANISHI, Yasutaka (SISSA)

**Session Classification:** WG3

Contribution ID: 22

Type: **not specified**

## **Charged LFV Decays, Majorana CP-Violating Phases, Leptogenesis and $b\bar{b}0\nu$ -Decay**

*Monday, 6 February 2006 15:30 (20 minutes)*

**Presenter:** PETCOV, Serguey (SISSA)

**Session Classification:** WG3

Contribution ID: 23

Type: **not specified**

## Large 2HDM(II) one-loop corrections in leptonic tau decays

*Tuesday, 7 February 2006 12:30 (20 minutes)*

The one-loop contributions to the branching ratios for leptonic tau decays are calculated in the CP conserving 2HDM(II). We found that these one-loop contributions, involving both neutral and charged Higgs bosons, dominate over the tree-level  $H^+$  exchange, the latter one being totally negligible for the decay into electron.

**Presenter:** KRAWCZYK, Maria (Warsaw)

**Session Classification:** WG3

Contribution ID: 24

Type: **not specified**

## **Reconstructing see-saw models from low energy data**

*Tuesday, 7 February 2006 09:30 (20 minutes)*

**Presenter:** IBARRA, Alejandro (IFT Madrid)

**Session Classification:** WG3

Contribution ID: 25

Type: **not specified**

## Minimal Dark Matter

*Tuesday, 7 February 2006 10:00 (20 minutes)*

**Presenter:** STRUMIA, Alessandro (Pisa)

**Session Classification:** WG3

Contribution ID: 26

Type: **not specified**

## **Higgs-mediated LFV effects including all the family transitions**

*Tuesday, 7 February 2006 10:30 (20 minutes)*

**Presenter:** PARADISI, Paride (Rome)

**Session Classification:** WG3

Contribution ID: 27

Type: **not specified**

## Lepton Flavour Violating tau and muon decays induced by SUSY

*Tuesday, 7 February 2006 11:30 (20 minutes)*

We present full one-loop predictions of ratios for all LFV tau and muon decays of type  $l_j \rightarrow 3l_i$  and  $l_j \rightarrow l_i + \gamma$  in the context of the Constrained MSSM with three (Majorana)  $\nu_R$  and their SUSY partners.

We use the seesaw mechanism for neutrino mass generation and choose Universal conditions at  $M_{\text{GUT}}$ . We study the restrictions on SUSY and seesaw parameters from LFV and neutrino data.

**Presenter:** HERRERO, Maria (Madrid)

**Session Classification:** WG3

Contribution ID: 28

Type: **not specified**

## The minimal SO(10) GUT

*Tuesday, 7 February 2006 12:00 (20 minutes)*

**Presenter:** BAJC, Borut (Ljubljana)

**Session Classification:** WG3

Contribution ID: 29

Type: **not specified**

## Discussion

Contribution ID: **31**

Type: **not specified**

## **Planning of the WG3 contribution to the Yellow Report**

*Wednesday, 8 February 2006 10:00 (2h 30m)*

**Session Classification:** WG3

Contribution ID: 32

Type: **not specified**

## **Higgs FCNC decays into top quark in the 2HDM model**

*Monday, 6 February 2006 09:50 (20 minutes)*

**Presenter:** BEJAR, Santi (Universidad Autonoma de Barcelona)

**Session Classification:** WG1

Contribution ID: 34

Type: **not specified**

## Status and plans for tau- $\rightarrow$ 3mu at CMS

**Presenter:** GIFFELS, M. (RWTH Aachen)

Contribution ID: 35

Type: **not specified**

## **Neutrino flavours and LHC phenomenology within the Randall-Sundrum model**

*Tuesday, 7 February 2006 14:00 (20 minutes)*

**Presenter:** MOREAU, Gregory

**Session Classification:** WG1+WG2+WG3

Contribution ID: **36**

Type: **not specified**

## Little Higgs

*Tuesday, 7 February 2006 15:00 (20 minutes)*

**Presenter:** SCHMALTZ, M. (Boston U.)

**Session Classification:** WG1+WG2+WG3

Contribution ID: 37

Type: **not specified**

## **4th generation effects in top and B decays**

**Presenter:** HOU, G.

Contribution ID: **38**

Type: **not specified**

## **A tool for NLO b- $\rightarrow$ s gamma**

**Presenter:** GAMBINO

Contribution ID: 39

Type: **not specified**

## **WG2 introduction**

*Monday, 6 February 2006 09:00 (10 minutes)*

**Presenter:** THE CONVENERS

**Session Classification:** WG2

Contribution ID: 40

Type: **not specified**

## **SUSY parameter measurement and b-physics**

*Tuesday, 7 February 2006 16:00 (20 minutes)*

**Presenter:** POLESELLO, G. (INFN Pavia)

**Session Classification:** WG1+2

Contribution ID: 41

Type: **not specified**

## **CKM fits in the SU(3) limit**

*Monday, 6 February 2006 09:10 (20 minutes)*

**Presenter:** MALCLES, Julie

**Session Classification:** WG2

Contribution ID: 42

Type: **not specified**

## Discussion for Tools

*Tuesday, 7 February 2006 17:00 (1 hour)*

**Session Classification:** WG1+2

Contribution ID: 43

Type: **not specified**

## **B meson form factors from sum rules and kaon DA**

*Monday, 6 February 2006 09:40 (20 minutes)*

**Presenter:** ZWICKY, Roman

**Session Classification:** WG2

Contribution ID: 44

Type: **not specified**

## User's guide to lattice QCD

*Monday, 6 February 2006 10:10 (20 minutes)*

**Presenter:** DUERR, Stephan

**Session Classification:** WG2

Contribution ID: 45

Type: **not specified**

## Theoretical status of $K \rightarrow \pi \nu \nu$

**Presenter:** HAISCH, Ulrich

Contribution ID: 46

Type: **not specified**

## $K^+ \rightarrow \pi^+ \nu \bar{\nu}$

**Presenter:** NA48 (TBA)

Contribution ID: 47

Type: **not specified**

## Higgs-mediated $K \rightarrow \pi \nu \nu$ at large $\tan \beta$

**Presenter:** PARADISI, Paride

Contribution ID: 48

Type: **not specified**

## **ATLAS Lambda\_b to Lambda mu mu**

**Presenter:** REZNICEK, Pavel

Contribution ID: 49

Type: **not specified**

## **LHCb B->DK ADS method**

**Presenter:** PATEL, Mitesh

Contribution ID: **50**

Type: **not specified**

## **experiment (TBA)**

Contribution ID: 51

Type: **not specified**

## **experiment (TBA)**

Contribution ID: 52

Type: **not specified**

## **experiment (TBA)**

Contribution ID: 53

Type: **not specified**

## **experiment (TBA)**

Contribution ID: 54

Type: **not specified**

## ROUND TABLE discussion

Contribution ID: 55

Type: **not specified**

## **Hadronic uncertainties in two-body B decays**

*Tuesday, 7 February 2006 09:00 (20 minutes)*

**Presenter:** FELDMANN, Thorsten

**Session Classification:** WG2

Contribution ID: 56

Type: **not specified**

## **NLO hard spectator scattering in QCDF**

*Tuesday, 7 February 2006 09:30 (20 minutes)*

**Presenter:** JAEGER, Sebastian

**Session Classification:** WG2

Contribution ID: 57

Type: **not specified**

## CKM bounds from B $\rightarrow$ K $\pi$ $\pi$

*Tuesday, 7 February 2006 10:00 (20 minutes)*

**Presenter:** CIUCHINI, Marco

**Session Classification:** WG2

Contribution ID: 58

Type: **not specified**

## QED corrections to hadronic B decays

Contribution ID: 59

Type: **not specified**

## QED corrections to hadronic B decays

*Tuesday, 7 February 2006 11:00 (20 minutes)*

**Presenter:** BARACCHINI, Elisabetta

**Session Classification:** WG2

Contribution ID: **60**

Type: **not specified**

## **LHCb B->DK Dalitz method**

*Tuesday, 7 February 2006 12:00 (20 minutes)*

**Presenter:** LAZZERONI, Cristina

**Session Classification:** WG2

Contribution ID: **61**

Type: **not specified**

## **News on PHOTOS Monte Carlo: issue of systematic errors**

*Tuesday, 7 February 2006 11:30 (20 minutes)*

**Presenter:** WAS, Zbigniew

**Session Classification:** WG2

Contribution ID: 62

Type: **not specified**

## **Planning of the WG2 contribution to the Yellow Report**

*Wednesday, 8 February 2006 09:00 (3 hours)*

**Session Classification:** WG2

Contribution ID: 63

Type: **not specified**

## **NLO QCD corrections to $b \rightarrow s \gamma$ in the MSSM**

*Tuesday, 7 February 2006 16:30 (20 minutes)*

**Presenter:** GAMBINO, Paolo

**Session Classification:** WG1+2

Contribution ID: **64**

Type: **not specified**

## Flavour studies at the LHC

Contribution ID: 65

Type: **not specified**

## Flavour physics and the 4th generation

*Tuesday, 7 February 2006 14:30 (20 minutes)*

**Presenter:** HOU, George

**Session Classification:** WG1+WG2+WG3

Contribution ID: 67

Type: **not specified**

## **Enhanced Lepton Flavor Violation in the Inverse Seesaw Model**

*Tuesday, 7 February 2006 09:00 (20 minutes)*

**Presenter:** DEPPISCH, Frank (DESY)

**Session Classification:** WG3

Contribution ID: **68**

Type: **not specified**

## Search for a light stop

*Monday, 6 February 2006 11:00 (20 minutes)*

**Presenter:** RAKLEV, A. (CERN and University of Bergen)

**Session Classification:** WG1+2 common session

Contribution ID: **69**

Type: **not specified**

## **Search for light stop with ATLAS**

*Monday, 6 February 2006 11:30 (20 minutes)*

**Presenter:** LARI, T. (Milano (University and INFN))

**Session Classification:** WG1+2 common session

Contribution ID: 72

Type: **not specified**

## **A complete 1-loop MSSM calculation of $t\bar{t}W$ production**

*Monday, 6 February 2006 14:00 (20 minutes)*

**Presenter:** VERZEGNASSI, C. (University and INFN, Trieste)

**Session Classification:** WG1

Contribution ID: 73

Type: **not specified**

## **SUSY CKM and mixed squark production**

*Monday, 6 February 2006 15:30 (20 minutes)*

**Presenter:** FUKS, B.

**Session Classification:** WG1

Contribution ID: 74

Type: **not specified**

## Search for stop in CMS

*Monday, 6 February 2006 12:00 (20 minutes)*

**Presenter:** PAKTINAT, S.

**Session Classification:** WG1+2 common session

Contribution ID: 75

Type: **not specified**

## **Single top-quark production by direct supersymmetric FCNC at the LHC**

*Monday, 6 February 2006 14:30 (20 minutes)*

**Presenter:** GUASCH, J.

**Session Classification:** WG1

Contribution ID: 76

Type: **not specified**

## **Planning of the WG1 contribution to the Yellow Report**

*Wednesday, 8 February 2006 10:00 (1 hour)*

**Session Classification:** WG1

Contribution ID: 77

Type: **not specified**

## **WG1+2 common session (see below)**

Contribution ID: 78

Type: **not specified**

## **ATLAS Lambda\_b to Lambda mu mu**

*Monday, 6 February 2006 14:00 (20 minutes)*

**Presenter:** REZNICEK, Pavel

**Session Classification:** WG2

Contribution ID: 79

Type: **not specified**

## **LHCb B->DK ADS method**

*Monday, 6 February 2006 14:30 (20 minutes)*

**Presenter:** PATEL, Mitesh

**Session Classification:** WG2

Contribution ID: **80**

Type: **not specified**

## **Theoretical status of $K \rightarrow \pi \nu \nu$**

*Monday, 6 February 2006 15:00 (20 minutes)*

**Presenter:** HAISCH, Ulrich

**Session Classification:** WG2

Contribution ID: **81**

Type: **not specified**

## **Higgs-mediated $K \rightarrow \pi \nu \nu$ at large $\tan \beta$**

*Monday, 6 February 2006 15:30 (20 minutes)*

**Presenter:** PARADISI, Paride

**Session Classification:** WG2

Contribution ID: **82**

Type: **not specified**

## **ROUND TABLE discussion**

*Monday, 6 February 2006 16:30 (1h 30m)*

VRVS conference is available at <http://www.vrvs.org>  
after login enter virtual room VRVS RAINBOW

**Presenter:** ALL

**Session Classification:** WG2

Contribution ID: **83**

Type: **not specified**

## **Feasibility study for a fixed target $\mu \rightarrow \tau$ conversion experiment**

*Monday, 6 February 2006 14:00 (20 minutes)*

**Presenter:** LUSIANI, Alberto (INFN)

**Session Classification:** WG3

Contribution ID: **84**

Type: **not specified**

**(no title)**

Discussion

Contribution ID: **85**

Type: **not specified**

## **Discussion**

*Monday, 6 February 2006 16:30 (1h 30m)*

**Session Classification:** WG3

Contribution ID: **86**

Type: **not specified**

## **Discussion on hadronic uncertainties**

*Tuesday, 7 February 2006 12:30 (30 minutes)*

**Session Classification:** WG2

Contribution ID: 87

Type: **not specified**

## tWb anomalous couplings

*Monday, 6 February 2006 15:00 (20 minutes)*

**Presenter:** NAJAFABADI, M.M.

**Session Classification:** WG1