

# **FLASY 2014 - Fourth workshop on flavour symmetries and consequences in accelerators and cosmology**



## **Report of Contributions**

Contribution ID: **13**

Type: **not specified**

## FLASY 2014 Summary

*Saturday, 21 June 2014 11:30 (45 minutes)*

**Primary author:** Prof. ANTUSCH, Stefan (University of Basel)

**Presenter:** Prof. ANTUSCH, Stefan (University of Basel)

**Session Classification:** Morning Session II - Chair: S. King

Contribution ID: 14

Type: **not specified**

## Multicomponent dark matter in radiative seesaw model

*Tuesday, 17 June 2014 14:20 (25 minutes)*

**Primary author:** AOKI, Mayumi (Kanazawa University)

**Presenter:** AOKI, Mayumi (Kanazawa University)

**Session Classification:** Afternoon Session I - Chair: F. Feruglio

Contribution ID: 15

Type: **not specified**

## Flavor symmetry and mass relations

*Wednesday, 18 June 2014 13:40 (20 minutes)*

**Primary author:** Mr BONILLA, Cesar (Universidad de Valencia, IFIC)

**Presenter:** Mr BONILLA, Cesar (Universidad de Valencia, IFIC)

**Session Classification:** Afternoon Session IB - Chair: M. Spinrath

Contribution ID: **16**

Type: **not specified**

## **Constraints on top (and bottom) couplings**

*Saturday, 21 June 2014 08:55 (25 minutes)*

**Primary author:** BROD, Joachim (TU Munich)

**Presenter:** BROD, Joachim (TU Munich)

**Session Classification:** Morning Session I - Chair: J. Rohrwild

Contribution ID: 17

Type: **not specified**

## Two-Higgs-doublet model phenomenology

*Wednesday, 18 June 2014 15:30 (25 minutes)*

**Primary author:** CRIVELLIN, Andreas (C)

**Presenter:** CRIVELLIN, Andreas (C)

**Session Classification:** Afternoon Session II - Chair: A. Belyaev

Contribution ID: **18**

Type: **not specified**

## Geometrical CP violation

*Thursday, 19 June 2014 11:05 (25 minutes)*

**Primary author:** DE MEDEIROS VARZIELAS, Ivo (University of Basel)

**Presenter:** DE MEDEIROS VARZIELAS, Ivo (University of Basel)

**Session Classification:** Morning Session II - M. Tanimoto

Contribution ID: **19**

Type: **not specified**

## **Lepton Number Violation in neutrinoless double beta decay and at LHC**

*Wednesday, 18 June 2014 08:55 (25 minutes)*

**Primary author:** Dr DEPPISCH, Frank (University College London (UK))

**Presenter:** Dr DEPPISCH, Frank (University College London (UK))

**Session Classification:** Morning Session I - Chair: E. Nardi



Contribution ID: 20

Type: **not specified**

## **Lepton mixing from generalized CP and Delta(96) family symmetry**

*Thursday, 19 June 2014 11:55 (25 minutes)*

**Primary author:** Dr DING, Gui-Jun (USTC)

**Presenter:** Dr DING, Gui-Jun (USTC)

**Session Classification:** Morning Session II - M. Tanimoto

Contribution ID: **21**

Type: **not specified**

## Gauge anomaly-free U(1) and seesaw models

*Friday, 20 June 2014 09:45 (25 minutes)*

**Primary author:** Dr EMMANUEL-COSTA, David (CFTP, IST, University of Lisbon)

**Presenter:** Dr EMMANUEL-COSTA, David (CFTP, IST, University of Lisbon)

**Session Classification:** Morning Session I - Chair: M. Mondragon

Contribution ID: 22

Type: **not specified**

## Theory Perspective on Flavour

*Tuesday, 17 June 2014 08:35 (30 minutes)*

**Primary author:** FERUGLIO, Ferruccio (Dipartimento di Fisica Galileo Galilei)

**Presenter:** FERUGLIO, Ferruccio (Dipartimento di Fisica Galileo Galilei)

**Session Classification:** Morning Session I - Chair: S. Jaeger

Contribution ID: 23

Type: **not specified**

## K physics theory

**Primary author:** GORBAHN, Martin (Liverpool University)

**Presenter:** GORBAHN, Martin (Liverpool University)

Contribution ID: 24

Type: **not specified**

## **B->K\*II: Theory, QCD and new physics**

*Thursday, 19 June 2014 08:30 (25 minutes)*

**Presenter:** Dr MARTIN CAMALICH, Jorge

**Session Classification:** Morning Session I - Chair: P. Ko

Contribution ID: 25

Type: **not specified**

## Hunting New Physics with Leptons

*Saturday, 21 June 2014 08:30 (25 minutes)*

**Primary author:** PARADISI, Paride (CERN)

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

**Session Classification:** Morning Session I - Chair: J. Rohrwild

Contribution ID: 26

Type: **not specified**

## **LFV at the crossroad of GUTs and neutrino masses**

**Primary author:** MASIERO, Antonio (INFN)

**Presenter:** MASIERO, Antonio (INFN)

Contribution ID: 27

Type: **not specified**

## Non-resonant B->K pi ll

*Thursday, 19 June 2014 08:55 (25 minutes)*

**Primary author:** HILLER, Gudrun (Technische Universitaet Dortmund (DE))

**Presenter:** HILLER, Gudrun (Technische Universitaet Dortmund (DE))

**Session Classification:** Morning Session I - Chair: P. Ko



Contribution ID: 28

Type: **not specified**

## Flavour symmetry in charm decays

*Friday, 20 June 2014 11:50 (25 minutes)*

**Presenter:** Dr STEFAN, Schacht

**Session Classification:** Morning Session II - Chair: Q. Shafi

Contribution ID: 29

Type: **not specified**

## **Lambda\_b -> Lambda l l**

*Friday, 20 June 2014 14:35 (25 minutes)*

**Presenter:** Dr VAN DYK, Danny

**Session Classification:** Afternoon Session I - Chair: G. Hiller

Contribution ID: **30**

Type: **not specified**

## **Resonances gone topsy turvy in $b \rightarrow s \ell \ell$**

*Friday, 20 June 2014 14:10 (25 minutes)*

**Presenter:** Dr ZWICKY, Roman

**Session Classification:** Afternoon Session I - Chair: G. Hiller

Contribution ID: 32

Type: **not specified**

## Stealthy new strong interactions

*Saturday, 21 June 2014 09:20 (25 minutes)*

**Presenter:** Dr STAMOU, Emmanuel

**Session Classification:** Morning Session I - Chair: J. Rohrwild

Contribution ID: 33

Type: **not specified**

## **New Perspectives to Probe New Physics with $B^0_s \rightarrow \mu^+ \mu^-$**

*Thursday, 19 June 2014 09:20 (25 minutes)*

**Presenter:** Prof. FLEISCHER, Robert

**Session Classification:** Morning Session I - Chair: P. Ko

Contribution ID: 34

Type: **not specified**

## Squark flavour mixing in B decays

*Saturday, 21 June 2014 09:45 (25 minutes)*

**Presenter:** Dr YAMAMOTO, Kei

**Session Classification:** Morning Session I - Chair: J. Rohrwild

Contribution ID: 35

Type: **not specified**

## Muon (g-2) and the Goldstone Boson Higgs

*Friday, 20 June 2014 10:40 (25 minutes)*

**Presenter:** Dr REDI, Michele

**Session Classification:** Morning Session II - Chair: Q. Shafi

Contribution ID: **36**

Type: **not specified**

## **B-mixing**

*Friday, 20 June 2014 13:45 (25 minutes)*

**Presenter:** Mr LENZ, Alexander

**Session Classification:** Afternoon Session I - Chair: G. Hiller



Contribution ID: 37

Type: **not specified**

## Latest results and prospects from LHCb

*Thursday, 19 June 2014 09:45 (25 minutes)*

**Presenter:** SPRADLIN, Patrick (University of Glasgow (GB))

**Session Classification:** Morning Session I - Chair: P. Ko

Contribution ID: **38**

Type: **not specified**

## **CPT and Lorentz symmetry tests with entangled neutral kaons at KLOE/KLOE-2**

*Friday, 20 June 2014 15:00 (25 minutes)*

**Presenter:** Dr CZERWIŃSKI, Eryk

**Session Classification:** Afternoon Session I - Chair: G. Hiller

Contribution ID: 39

Type: **not specified**

## Neutrinoless Double Beta Decay Experiment

*Wednesday, 18 June 2014 09:45 (25 minutes)*

**Presenter:** HARTNELL, Jeff (University of Sussex)

**Session Classification:** Morning Session I - Chair: E. Nardi

Contribution ID: 40

Type: **not specified**

## Results and prospects from MEG

*Wednesday, 18 June 2014 11:25 (25 minutes)*

**Presenter:** VOENA, Cecilia (Universita e INFN, Roma I (IT))

**Session Classification:** Morning Session II - Chair: S. Morisi

Contribution ID: 41

Type: **not specified**

## Using neutrino mass sum rules to realistically probe flavour models

*Friday, 20 June 2014 09:20 (25 minutes)*

**Presenter:** Dr MERLE, Alexander

**Session Classification:** Morning Session I - Chair: M. Mondragon

Contribution ID: 43

Type: **not specified**

## **Towards a common origin of neutrino and dark matter**

*Tuesday, 17 June 2014 13:30 (25 minutes)*

**Presenter:** Dr MORISI, Stefano

**Session Classification:** Afternoon Session I - Chair: F. Feruglio

Contribution ID: 44

Type: **not specified**

## Neutrino mass textures

*Friday, 20 June 2014 08:55 (25 minutes)*

**Presenter:** Dr TANIMOTO, Morimitsu

**Session Classification:** Morning Session I - Chair: M. Mondragon

Contribution ID: 45

Type: **not specified**

## **Symmetries in multi-Higgs models and their quark sector consequences**

*Tuesday, 17 June 2014 11:15 (25 minutes)*

**Presenter:** Dr IVANOV, Igor

**Session Classification:** Morning Session II - Chair: R. Fleischer



Contribution ID: 46

Type: **not specified**

## Yukawa Coupling Ratios in SU(5) GUTs

*Tuesday, 17 June 2014 16:30 (25 minutes)*

**Presenter:** Dr SPINRATH, Martin

**Session Classification:** Afternoon Session II - Chair: S. Huber

Contribution ID: 47

Type: **not specified**

## **Multi-Higgs models with Abelian symmetries**

*Tuesday, 17 June 2014 11:40 (25 minutes)*

**Presenter:** Dr SERODIO, Hugo

**Session Classification:** Morning Session II - Chair: R. Fleischer

Contribution ID: 49

Type: **not specified**

## Fermion flavour in multi-Higgs models

*Tuesday, 17 June 2014 10:50 (25 minutes)*

**Primary author:** MONDRAGON, Myriam (Unknown)

**Presenter:** MONDRAGON, Myriam (Unknown)

**Session Classification:** Morning Session II - Chair: R. Fleischer

Contribution ID: 50

Type: **not specified**

## **Residual discrete symmetries in Froggatt Nielsen models**

*Saturday, 21 June 2014 10:40 (25 minutes)*

**Primary author:** LUHN, Christoph (University of Siegen)

**Presenter:** LUHN, Christoph (University of Siegen)

**Session Classification:** Morning Session II - Chair: S. King

Contribution ID: 51

Type: **not specified**

## Flavour violation in SUSY seesaw models at colliders

*Wednesday, 18 June 2014 11:00 (25 minutes)*

**Presenter:** Prof. ROMÃO, Jorge

**Session Classification:** Morning Session II - Chair: S. Morisi

Contribution ID: 52

Type: **not specified**

## Abelian Higgs models

*Saturday, 21 June 2014 11:05 (25 minutes)*

**Presenter:** MALINSKY, Michal

**Session Classification:** Morning Session II - Chair: S. King

Contribution ID: 53

Type: **not specified**

## U(1)' for neutrino mass, dark matter, stability of the electroweak scale

*Tuesday, 17 June 2014 14:45 (25 minutes)*

**Primary author:** WATANABE, Atsushi (Japan/Niigata Univ.)

**Presenter:** WATANABE, Atsushi (Japan/Niigata Univ.)

**Session Classification:** Afternoon Session I - Chair: F. Feruglio

Contribution ID: 54

Type: **not specified**

## Flavoured Dark Matter

*Tuesday, 17 June 2014 15:40 (25 minutes)*

**Primary author:** PEINADO, Eduardo (INFN - Laboratori Nazionali di Frascati)

**Presenter:** PEINADO, Eduardo (INFN - Laboratori Nazionali di Frascati)

**Session Classification:** Afternoon Session II - Chair: S. Huber



Contribution ID: 57

Type: **not specified**

## Neutrino Masses and Conformal Electro-Weak Symmetry Breaking

*Friday, 20 June 2014 08:30 (25 minutes)*

**Presenter:** Prof. LINDNER, Manfred

**Session Classification:** Morning Session I - Chair: M. Mondragon

Contribution ID: 58

Type: **not specified**

## Yukawa Unification, Flavour Symmetry & SUSY GUTs

*Tuesday, 17 June 2014 09:05 (25 minutes)*

**Primary author:** Prof. SHAFI, qaisar (university of delaware)

**Presenter:** Prof. SHAFI, qaisar (university of delaware)

**Session Classification:** Morning Session I - Chair: S. Jaeger

Contribution ID: 59

Type: **not specified**

## Quark Yukawa pattern from spontaneous breaking of flavour $SU(3)^3$

*Tuesday, 17 June 2014 09:30 (25 minutes)*

**Primary author:** NARDI, Enrico (INFN)

**Presenter:** NARDI, Enrico (INFN)

**Session Classification:** Morning Session I - Chair: S. Jaeger

Contribution ID: **60**

Type: **not specified**

## **Scale invariant extension of the standard model and Nambu-Goldstone dark matter**

*Friday, 20 June 2014 11:05 (25 minutes)*

**Presenter:** Mr KUBO, Jisuke

**Session Classification:** Morning Session II - Chair: Q. Shafi

Contribution ID: **61**

Type: **not specified**

## Results and prospects from T2K

*Thursday, 19 June 2014 10:40 (25 minutes)*

**Primary author:** Dr WEBER, Alfons (STFC/RAL)

**Presenter:** Dr WEBER, Alfons (STFC/RAL)

**Session Classification:** Morning Session II - M. Tanimoto

Contribution ID: **62**

Type: **not specified**

## **125-126 GeV Higgs mass and scalar dark matter**

*Tuesday, 17 June 2014 16:05 (25 minutes)*

**Presenter:** Prof. HABA, Naoyuki

**Session Classification:** Afternoon Session II - Chair: S. Huber

Contribution ID: 63

Type: **not specified**

## **Inert 2HDM with local $U(1)_H$ gauge symmetry and related issues**

*Tuesday, 17 June 2014 09:55 (25 minutes)*

**Primary author:** Prof. KO, pyungwon (Korea Inst. for Advanced Study (KIAS))

**Presenter:** Prof. KO, pyungwon (Korea Inst. for Advanced Study (KIAS))

**Session Classification:** Morning Session I - Chair: S. Jaeger

Contribution ID: 64

Type: **not specified**

## **Systematic studies of texture zeros in lepton mass matrices**

*Friday, 20 June 2014 15:55 (20 minutes)*

**Primary author:** LUDL, Patrick (University of Vienna)

**Presenter:** LUDL, Patrick (University of Vienna)

**Session Classification:** Afternoon Session II - Chair: A. Merle



Contribution ID: 65

Type: **not specified**

## Lepton masses and mixing angles from point interaction

*Friday, 20 June 2014 16:15 (20 minutes)*

**Primary author:** FUJIMOTO, Yukihiro (Osaka university)

**Presenter:** FUJIMOTO, Yukihiro (Osaka university)

**Session Classification:** Afternoon Session II - Chair: A. Merle

Contribution ID: 66

Type: **not specified**

## The flavour symmetry $Q(6)$ in a $SU(5)$ GUT model

*Wednesday, 18 June 2014 17:25 (20 minutes)*

**Presenter:** Dr GONZALEZ-CANALES, Felix

**Session Classification:** Afternoon Session III - Chair: M. Aoki

Contribution ID: **67**

Type: **not specified**

**TBA**

**Primary author:** GRANGER, Andrew (S)

**Presenter:** GRANGER, Andrew (S)

Contribution ID: **68**

Type: **not specified**

## **Right-handed sneutrino-antisneutrino oscillation in Tev scale BLSSM**

*Wednesday, 18 June 2014 11:50 (20 minutes)*

**Presenter:** Prof. KHALIL, Shaaban

**Session Classification:** Morning Session II - Chair: S. Morisi

Contribution ID: 69

Type: **not specified**

## **Towards predictive flavour models in SUSY SU(5) GUTs with doublet-triplet splitting**

*Wednesday, 18 June 2014 14:40 (20 minutes)*

**Presenter:** Mr MAURER, Vinzenz

**Session Classification:** Afternoon Session IB - Chair: M. Spinrath

Contribution ID: 70

Type: **not specified**

# Oscillations of Pseudo-Dirac Neutrinos and Supernovae

*Friday, 20 June 2014 17:15 (20 minutes)*

**Presenter:** Dr MOUMNI, Mustafa

**Session Classification:** Afternoon Session II - Chair: A. Merle

Contribution ID: 71

Type: **not specified**

## **Sizable D-term contribution as a signature of $E_6 \times SU(2)_F \times U(1)_A$ SUSY GUT model**

*Wednesday, 18 June 2014 17:45 (20 minutes)*

**Primary author:** MURAMATSU, Yu (Nagoya university)

**Presenter:** MURAMATSU, Yu (Nagoya university)

**Session Classification:** Afternoon Session III - Chair: M. Aoki

Contribution ID: 72

Type: **not specified**

## **Non-diagonal charged lepton mass matrix and non-zero $\theta_{13}$**

*Friday, 20 June 2014 16:35 (20 minutes)*

**Presenter:** Ms ROJAS, Alma

**Session Classification:** Afternoon Session II - Chair: A. Merle



Contribution ID: 73

Type: **not specified**

## Large lepton mixing originating from the right-handed sector

*Wednesday, 18 June 2014 14:20 (20 minutes)*

**Presenter:** Mr SCHUMACHER, Erik

**Session Classification:** Afternoon Session IA - Chair: J. Martin Camalich

Contribution ID: 75

Type: **not specified**

## **Non-zero Theta\_13 and Leptogenesis with A\_4 symmetry**

*Friday, 20 June 2014 16:55 (20 minutes)*

**Presenter:** Dr SIL, Arunansu

**Session Classification:** Afternoon Session II - Chair: A. Merle

Contribution ID: 76

Type: **not specified**

## **Radiative generation of quark masses and mixing angles in the 2HDM**

*Wednesday, 18 June 2014 13:40 (20 minutes)*

**Presenter:** SOLAGUREN-BEASCOA, Ana

**Session Classification:** Afternoon Session IA - Chair: J. Martin Camalich

Contribution ID: 77

Type: **not specified**

## **Higgs inflation with singlet scalar dark matter and right-handed neutrino in the light of BICEP2**

*Friday, 20 June 2014 11:30 (20 minutes)*

**Presenter:** Dr TAKAHASHI, Ryo

**Session Classification:** Morning Session II - Chair: Q. Shafi

Contribution ID: 78

Type: **not specified**

## CP Violation from Discrete (Flavor) Symmetries

*Wednesday, 18 June 2014 14:20 (20 minutes)*

**Primary author:** TRAUTNER, Andreas (TU Muenchen)

**Presenter:** TRAUTNER, Andreas (TU Muenchen)

**Session Classification:** Afternoon Session IB - Chair: M. Spinrath

Contribution ID: **80**

Type: **not specified**

## **FlavorKit: flavor physics beyond the standard model**

*Wednesday, 18 June 2014 15:55 (20 minutes)*

**Primary author:** VICENTE MONTESINOS, Avelino (Université de Liège)

**Presenter:** VICENTE MONTESINOS, Avelino (Université de Liège)

**Session Classification:** Afternoon Session II - Chair: A. Belyaev

Contribution ID: **81**

Type: **not specified**

## **Testing Flavor Symmetries with Flavored Gauge Mediation**

*Wednesday, 18 June 2014 17:05 (20 minutes)*

**Primary author:** ZIEGLER, Robert

**Presenter:** ZIEGLER, Robert

**Session Classification:** Afternoon Session III - Chair: M. Aoki

Contribution ID: 82

Type: **not specified**

## **Lepton Mixing Predictions from $\Delta(6n^2)$ groups and Generalised CP**

*Wednesday, 18 June 2014 14:00 (20 minutes)*

**Presenter:** Mr NEDER, Thomas

**Session Classification:** Afternoon Session IA - Chair: J. Martin Camalich



Contribution ID: **83**

Type: **not specified**

## **Leptonic dipole operators in the RS model**

*Wednesday, 18 June 2014 16:15 (20 minutes)*

**Primary author:** ROHRWILD, Juergen (University of Oxford)

**Presenter:** ROHRWILD, Juergen (University of Oxford)

**Session Classification:** Afternoon Session II - Chair: A. Belyaev

Contribution ID: 84

Type: **not specified**

## Origin of Neutrino Mass and the LHC

*Wednesday, 18 June 2014 10:40 (20 minutes)*

**Primary author:** SCHMIDT, Michael (The University of Melbourne)

**Presenter:** SCHMIDT, Michael (The University of Melbourne)

**Session Classification:** Morning Session II - Chair: S. Morisi

Contribution ID: 85

Type: **not specified**

## Dark matter experiment

*Tuesday, 17 June 2014 13:55 (25 minutes)*

**Presenter:** Prof. MONROE, Jocelyn

**Session Classification:** Afternoon Session I - Chair: F. Feruglio

Contribution ID: **86**

Type: **not specified**

## Recent results at the B Factories

Contribution ID: 87

Type: **not specified**

## **Radiative neutrino masses and neutrinoless double beta decay**

*Wednesday, 18 June 2014 09:20 (25 minutes)*

**Primary author:** Dr NO, Jose Miguel (University of Sussex)

**Presenter:** Dr NO, Jose Miguel (University of Sussex)

**Session Classification:** Morning Session I - Chair: E. Nardi

Contribution ID: **89**

Type: **not specified**

## **CP in Models with Discrete Flavour Symmetries**

*Thursday, 19 June 2014 11:30 (25 minutes)*

**Primary author:** HOLTHAUSEN, Martin (MPIK Heidelberg)

**Presenter:** HOLTHAUSEN, Martin (MPIK Heidelberg)

**Session Classification:** Morning Session II - M. Tanimoto

Contribution ID: **91**

Type: **not specified**

## Neutrinoless double beta decay

*Wednesday, 18 June 2014 08:30 (25 minutes)*

**Primary author:** RODEJOHANN, Werner (MPIK, Heidelberg)

**Presenter:** RODEJOHANN, Werner (MPIK, Heidelberg)

**Session Classification:** Morning Session I - Chair: E. Nardi

Contribution ID: **92**

Type: **not specified**

## Welcome to FLASY 2014

*Tuesday, 17 June 2014 08:30 (5 minutes)*

**Presenter:** JAEGER, Sebastian (University of Sussex (GB))

**Session Classification:** Morning Session I - Chair: S. Jaeger



Contribution ID: **93**

Type: **not specified**

## Closing

*Saturday, 21 June 2014 12:25 (5 minutes)*

**Session Classification:** Morning Session II - Chair: S. King

Contribution ID: **94**

Type: **not specified**

## Flasy 2015

*Saturday, 21 June 2014 12:15 (10 minutes)*

**Session Classification:** Morning Session II - Chair: S. King

Contribution ID: 95

Type: **not specified**

## **Accurate renormalization group analyses in the neutrino sector**

*Wednesday, 18 June 2014 14:00 (20 minutes)*

**Presenter:** Dr YAMAGUCHI, Yuya

**Session Classification:** Afternoon Session IB - Chair: M. Spinrath

Contribution ID: **96**

Type: **not specified**

## Extra time

*Wednesday, 18 June 2014 14:40 (20 minutes)*

**Session Classification:** Afternoon Session IA - Chair: J. Martin Camalich