

# Anomalies 2023 Workshop

March 8-10, 2023  
SCGP, Stony Brook

---

## Wednesday, March 8

8.30-9.20: *Breakfast*

9.20-9.30: Luis Alvarez-Gaume (SCGP Director), Opening remarks

**Chair: Angelo Di Canto (BNL)**

9.30-10.05: Mitesh Patel (Imperial), *LHCb status of the FCNC anomalies*

10.05-10.40: Toru Iijima (Nagoya), Status, recent highlights and prospects from Belle II@SuperKEKB

10.40-11.10: *Coffee break*

**Chair: Tom Browder (Hawaii)**

11.10-11.45: Manuel Franco Sevilla (Maryland), *LHCb status of anomalies in  $b \rightarrow c\tau\nu$  transition*

11.45-12.20: Gudrun Hiller (Dortmund), *Theoretical remarks on flavor anomalies*

12.20-14.00: *Lunch break*

**Chair: Mauro Valli (YITP)**

14.00-14.35: Claudia Cornelia (Mainz), *Leptoquarks for anomalies*

14.35-15.10: Wolfgang Altmannshofer (UC Santa Cruz), *Supersymmetry for anomalies*

15.10-15.40: *Coffee break*

**Chair: Amarjit Soni (BNL)**

15.40-16:15: Marina Artuso (Syracuse), *B-mixings and CP-violation*

16:15-16:50: Tobi Tsang (CERN), *A review of B-mixings*

## Thursday, March 9

8.30-9.30: *Breakfast*

**Chair: Marina Artuso (Syracuse)**

9:30-10:05: Tom Browder (Hawaii), BSM discovery potential of Belle II@SuperKEKB in  $b \rightarrow c$  and  $b \rightarrow s$

10:05-10:40: Monica Altarelli (CERN), Prospects for the LHCb upgrade

10.40-11.10: *Coffee break*

**Chair: Christoph Lehner (Regensburg)**

11.10-11.45: Zoltan Ligeti (LBNL), *Progress on semi-leptonic form factors for B-decays*

11.45-12.20: Will Jay (MIT), *Lattice studies of semi-leptonic form factors for B-decays*

12.20-14.00: *Lunch break*

**Chair: Bhupal Dev (WashU)**

14.00-14.35: Shoji Hashimoto (KEK), *Lattice QCD studies of inclusive processes*

14.35-15.10: Rusa Mandal (IIT Gandhinagar),  $B \rightarrow K^{(*)} \nu \nu$ : SM & beyond

15.10-15.45: Julia Gherlein (CERN), *Neutrino anomalies*

15.45-16.15: *Coffee break*

**Chair: Hooman Davoudiasl (BNL)**

16.15-16.50: Yannis Semertzidis (IBS), *Experimental effort on EDMs*

16.50-17.25: Maxim Pospelov (Minnesota), *Theory overview of EDMs*

18.30-20:30 *Conference dinner*

## Friday, March 10

8.30-9.30: *Breakfast*

**Chair: Yannis Semertzidis (IBS)**

9.30-10.05: Chris Polly (Fermilab), *Latest results on muon (g-2)*

10.05-10.40: Gilberto Colangelo (Bern), Overview of dispersive HVP and analytical HLbL

10.40-11.10: *Coffee break*

**Chair: Aida El-Khadra (UIUC)**

11.10-11.45: Michel Davier (Orsay), *Overview of experimental inputs to dispersive HVP: Recent measurements and future plans* **[REMOTE]**

11.45-12.20: Christoph Lehner (Regensburg), *Lattice HVP and HLbL: A summary*

12.20-14.00: *Lunch break*

**Chair: Tom Blum (UConn)**

14.00-14.35: Mauro Valli (YITP, SBU), *B Anomalies circa 2023: A Theorist's Point of View*

14.35-15.10: Paride Paradisi (INFN, Padua), *Leptonic (g-2): Theory outlook* **[REMOTE]**

15.10-15.45: Anselm Vossen (Duke), *Belle-II input for muon g-2* **[REMOTE]**

15.45-15.50: *Closing remarks and end of workshop.*