

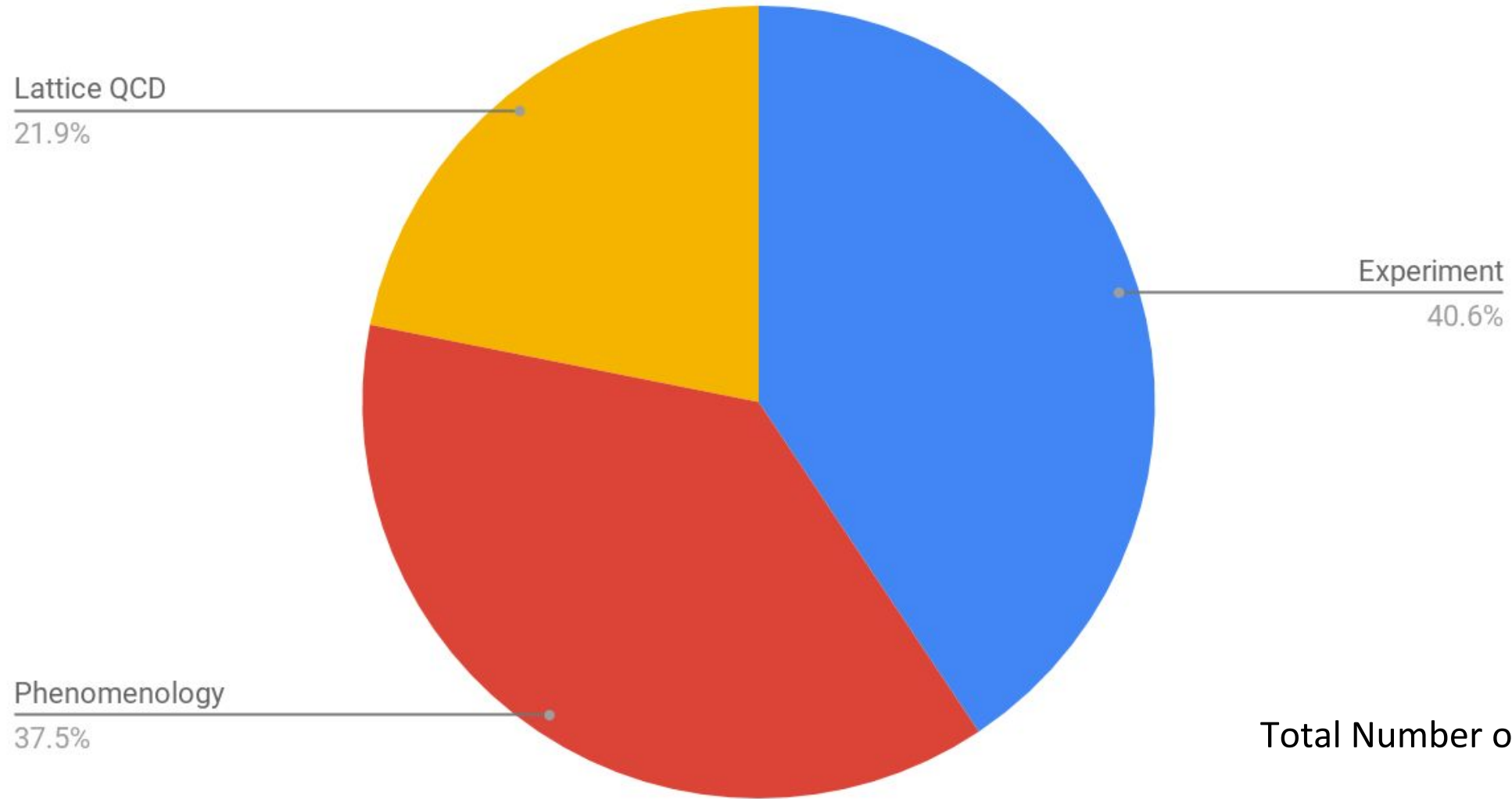
RF1: Weak decays of b and c quarks

Angelo Di Canto (BNL), Stefan Meinel (U. of Arizona)

Rare and Precision Frontier Topical Convener Meeting

25 September 2020

LOIs by area



Total Number of LOIs: 28

Common themes in LOIs

- Research in heavy flavor physics is an essential component of particle physics
- Anomalies, semileptonic b decays and charm physics among the most discussed topics
- Lattice LOIs: importance of precise form factors for semileptonic decays, new methods for inclusive decays on the lattice

Town Hall meeting

- RF1 parallel session (see next slide)
 - Planning to have 20-21 talks of 8'+2' with 2x15' breaks
 - Most speakers have been identified, still waiting for replies to a few invitations
- Plenary session with TG reports: shall we consider to cancel/reschedule it? (Maybe do it in next RF TG convener meeting instead?)
 - What is exactly the goal of this session?
 - It looks impracticable to prepare a summary of the parallel session with the current schedule
 - Many speakers for RF1 are from Europe/Asia, they certainly won't manage to attend the final plenary

Tentative agenda

Talk	Speaker	Length	EDT	CEST	JST	IST
CKM measurements and CPV in b decays at Belle II	A. Gaz (Nagoya)	8'+2'	12:50	18:50	1:50	22:20
CKM measurements and CPV in b decays at LHCb	P. Hamilton (Maryland)?	8'+2'	13:00	19:00	2:00	22:30
Exploring new physics with $B_c \rightarrow \tau \nu_\tau$	T. Zheng (Nanjing)	8'+2'	13:10	19:10	2:10	22:40
High Precision SM Predictions for Quark Flavor Observables	A. Lenz (Siegen)	8'+2'	13:20	19:30	2:20	22:50
Weak decays of b and c quarks	O. Witzel (Colorado)	8'+2'	13:30	19:30	2:30	23:00
High precision determinations of $ V_{xb} $ from a close theory-experiment collaboration	B. Dey (CCNU Wuhan)	8'+2'	13:40	19:40	2:40	23:10
CP-violation study in b-baryon hadronic decays using SU(3) symmetry	S. Roy (IMSc Chennai)	8'+2'	13:50	19:50	2:50	23:20
Break		15'	14:00	20:00	3:00	23:30
Precision theory inputs for $ V_{cb} $ and LFUV observables	A. Lytle (INFN, Tor Vergata)	8'+2'	14:15	20:15	3:15	23:45
Lattice-QCD studies of inclusive B-meson decays	W. I. Jay (FNAL)	8'+2'	14:25	20:25	3:25	23:55
Charm physics at BESIII and Super charm-tau factories	H.P. Peng (USTC)?	8'+2'	14:35	20:35	3:35	0:05
Charm physics at LHCb	M. Williams (Edinburg)	8'+2'	14:45	20:45	3:45	0:15
Rare Charm Decays	D. Mitzel (CERN)	8'+2'	14:55	20:55	3:55	0:25
Charm physics at Belle II	J. Bennett (Mississippi)	8'+2'	15:05	21:05	4:05	0:35
Precision Lattice QCD in Support of BSM Searches	A. Kronfeld (FNAL)	8'+2'	15:15	21:15	4:15	0:45
Break		15'	15:25	21:25	4:25	0:55
Rare b decays at LHCb	F. Archilli (Heidelberg)	8'+2'	15:40	21:40	4:40	1:10
Rare b decays at Belle II	A. Schwartz (Cincinnati)	8'+2'	15:50	21:50	4:50	1:20
Testing LFU at the Z pole	L.F. Li (Hong Kong U. Sci. Tech.)	8'+2'	16:00	22:00	5:00	1:30
Searching for $B_s \rightarrow \phi \nu \nu$ and other $b \rightarrow s \nu \nu$ processes at CEPC	?	8'+2'	16:10	22:10	5:10	1:40
Rare b Decays as Probes of New Physics	W. Altmannshofer (UCSC)	8'+2'	16:20	22:20	5:20	1:50
Triple-Product Asymmetries	B. Bhattacharya (Lawrence Tech)	8'+2'	16:30	22:30	5:30	2:00
CPT-Symmetry Studies Involving Quarks	R. Lehnert (Indiana)	8'+2'	16:40	22:40	5:40	2:10

Looking ahead

- We have organized a 2-day workshop on “Lepton flavor violation and lepton universality violation in meson and baryon decays” in collaboration with RF5: <https://indico.fnal.gov/event/44442/>
- We plan to continue with ~monthly workshops covering different topics of interest, eventually joined with other frontiers/topical groups
- Next will probably be at the beginning of Nov on V_{ub}/V_{cb} , jointly with TF
- Ideally, the workshops should kick-off discussions and stimulate people to get together and write a whitepaper