

Multi-Boson Interactions 2021

Report of Contributions

Contribution ID: 1

Type: **not specified**

Status of Effective Field Theory and SMEFT

Monday, August 23, 2021 2:00 PM (30 minutes)

Presenter: TROTT, Michael Robert (University of Copenhagen (DK))

Session Classification: Opening session

Contribution ID: 2

Type: **not specified**

Search for tribosons in ATLAS

Monday, August 23, 2021 4:30 PM (45 minutes)

Presenter: SUN, Siyuan (University of Michigan (US))

Session Classification: Tribosons

Contribution ID: 3

Type: **not specified**

NNLO progress in diboson processes

Tuesday, August 24, 2021 10:00 AM (30 minutes)

Presenters: GRAZZINI, Massimiliano (Universitaet Zuerich (CH)); GRAZZINI, Massimiliano (INFN)

Session Classification: Precision QCD calculations

Contribution ID: 4

Type: **not specified**

Direct searches for resonances with VV/VH/HH final states in ATLAS and CMS

Tuesday, August 24, 2021 11:30 AM (45 minutes)

Presenter: DUDA, Dominik (Max Planck Society (DE))

Session Classification: Multibosons with Higgs

Contribution ID: 5

Type: **not specified**

Measurements of gauge boson polarization in diboson production

Tuesday, August 24, 2021 2:30 PM (45 minutes)

Presenter: ERICE CID, Carlos Francisco (Universidad de Oviedo (ES))

Session Classification: Diboson precision measurements

Contribution ID: 6

Type: **not specified**

NLO QCD effects in SMEFT

Tuesday, August 24, 2021 4:30 PM (30 minutes)

Presenter: HOMILLER, Samuel (Harvard University)

Session Classification: Higher-order QCD in dibosons

Contribution ID: 7

Type: **not specified**

QCD effects in VBS

Wednesday, August 25, 2021 10:00 AM (30 minutes)

Presenter: PLAETZER, Simon (ITP, Universitaet Karlsruhe)

Session Classification: Vector-boson Scattering / Fusion I

Contribution ID: 8

Type: **not specified**

Searches for NP in multi-boson events using anomalous coupling and/or effective field theory approaches

Thursday, August 26, 2021 10:00 AM (45 minutes)

Presenter: BHATTACHARYA, Saptaparna (Northwestern University (US))

Session Classification: Effective Field Theories II

Contribution ID: 9

Type: **not specified**

EWK single and diboson production and aGCs of massive vector bosons

Wednesday, August 25, 2021 11:30 AM (45 minutes)

Presenter: CHAUDHARY, Geetanjali (Panjab University (IN))

Session Classification: Vector-boson Scattering / Fusion II

Contribution ID: **10**

Type: **not specified**

Status of SMEFT fits

Thursday, August 26, 2021 11:30 AM (30 minutes)

Presenters: DURIEUX, Gauthier (CERN); DURIEUX, Gauthier (CERN)

Session Classification: Effective Field Theories III

Contribution ID: 11

Type: **not specified**

Strongly interacting models in longitudinal VBS

Wednesday, August 25, 2021 2:30 PM (30 minutes)

Presenter: BUARQUE FRANZOSI, Diogo (Chalmers University of Technology)

Session Classification: Vector-boson Scattering / Fusion III

Contribution ID: 12

Type: **not specified**

How relevant are top loops in VBS searches for new physics?

Thursday, August 26, 2021 2:30 PM (30 minutes)

Presenter: QUEZADA CALONGE, Carlos (Universidad Complutense de Madrid)

Session Classification: Hot topics and recent results

Contribution ID: 13

Type: **not specified**

Fits of dimension-6 EFT in VBS and dibosons

Wednesday, August 25, 2021 5:00 PM (20 minutes)

Presenter: MAGNI, Giacomo (Nikhef, VU Amsterdam)

Session Classification: Effective Field Theories I

Contribution ID: 14

Type: **not specified**

Theory summary and prospects

Session Classification: Closing session

Contribution ID: 15

Type: **not specified**

Fifth Day, part 1

Contribution ID: **16**

Type: **not specified**

Fifth Day, part 2

Contribution ID: 17

Type: **not specified**

Dimension-8 operators in EFT

Monday, August 23, 2021 2:30 PM (30 minutes)

Presenter: SHU, Jing (ITP-CAS)

Session Classification: Opening session

Contribution ID: **18**

Type: **not specified**

VBSCan inputs to the Snowmass effort

Monday, August 23, 2021 3:00 PM (30 minutes)

Presenters: RUIZ, Richard (University of Pittsburgh); RUIZ, Richard (Fermi National Accelerator Lab. (US))

Session Classification: Opening session

Contribution ID: 19

Type: **not specified**

Overview of electroweak corrections

Monday, August 23, 2021 3:30 PM (30 minutes)

Presenters: LINDERT, Jonas; LINDERT, Jonas; LINDERT, Jonas (University of Sussex)

Session Classification: Opening session

Contribution ID: 20

Type: **not specified**

YSF: Triboson production in CMS

Monday, August 23, 2021 5:15 PM (15 minutes)

Presenter: MECCA, Alberto (Universita e INFN Torino (IT))

Session Classification: Tribosons

Contribution ID: 21

Type: **not specified**

Light Yukawas in the triboson final state

Monday, August 23, 2021 5:30 PM (30 minutes)

Presenter: YOU, Tevong (University of Cambridge)

Session Classification: Tribosons

Contribution ID: 22

Type: **not specified**

NNLO/NNLL pT resummation in GENEVA

Tuesday, August 24, 2021 10:30 AM (30 minutes)

Presenter: ALIOLI, Simone (Universita & INFN, Milano-Bicocca (IT))

Session Classification: Precision QCD calculations

Contribution ID: 23

Type: **not specified**

VH associated production, non-resonant HH and rare Higgs decays

Tuesday, August 24, 2021 12:15 PM (45 minutes)

Presenters: CAVALIERE, Viviana (Brookhaven National Lab); CAVALIERE, viviana

Session Classification: Multibosons with Higgs

Contribution ID: 24

Type: **not specified**

Precision measurements of diboson differential and total cross sections

Tuesday, August 24, 2021 3:15 PM (45 minutes)

Presenter: LEVIN, Andrew Michael (Peking University (CN))

Session Classification: Diboson precision measurements

Contribution ID: 25

Type: **not specified**

Measurements of dibosons with additional jets

Tuesday, August 24, 2021 5:00 PM (45 minutes)

Presenter: MILDNER, Hannes (University of Sheffield (GB))

Session Classification: Higher-order QCD in dibosons

Contribution ID: 26

Type: **not specified**

NNLO effects in diboson polarization

Tuesday, August 24, 2021 5:45 PM (15 minutes)

Presenter: POPESCU, Andrei (University of Cambridge)

Session Classification: Higher-order QCD in dibosons

Contribution ID: 27

Type: **not specified**

Polarization in VBS, VBF and dibosons

Wednesday, August 25, 2021 10:30 AM (30 minutes)

Presenters: PELLICCIOLI, Giovanni (Würzburg University); PELLICCIOLI, Giovanni (Würzburg University)

Session Classification: Vector-boson Scattering / Fusion I

Contribution ID: 28

Type: **not specified**

Recent VBS results with photons in ATLAS and CMS

Wednesday, August 25, 2021 12:15 PM (45 minutes)

Presenter: YAP, Yee Chinn (Deutsches Elektronen-Synchrotron (DE))

Session Classification: Vector-boson Scattering / Fusion II

Contribution ID: 29

Type: **not specified**

Non-factorizable QCD corrections to VBS

Wednesday, August 25, 2021 3:00 PM (30 minutes)

Presenters: MELNIKOV, Kirill; MELNIKOV, Kirill (KIT)

Session Classification: Vector-boson Scattering / Fusion III

Contribution ID: **30**

Type: **not specified**

Coherent QCD radiation in VBS

Wednesday, August 25, 2021 3:30 PM (30 minutes)

Presenter: PREUSS, Christian (Monash University)

Session Classification: Vector-boson Scattering / Fusion III

Contribution ID: 31

Type: **not specified**

YSF: Vector Boson Scattering in CMS with W bosons in the final state

Wednesday, August 25, 2021 4:30 PM (15 minutes)

Presenters: PINOLINI, Bianca Sofia (Universita & INFN, Milano-Bicocca (IT)); PINOLINI, Bianca Sofia

Session Classification: Vector-boson Scattering / Fusion IV

Contribution ID: 32

Type: **not specified**

YSF: The exclusive gamma gamma -> WW process in ATLAS

Wednesday, August 25, 2021 4:45 PM (15 minutes)

Presenters: CLAWSON, Savannah; CLAWSON, Savannah (University of Manchester (GB))

Session Classification: Vector-boson Scattering / Fusion IV

Contribution ID: 33

Type: **not specified**

Sensitivity to dimension-6 EFT in VBS and dibosons

Wednesday, August 25, 2021 5:20 PM (20 minutes)

Presenter: BOLDRINI, Giacomo (Universita & INFN, Milano-Bicocca (IT))

Session Classification: Effective Field Theories I

Contribution ID: 34

Type: **not specified**

Study of Longitudinally Polarized VBS Fractions in Semileptonic VBS Decays at the HL-LHC

Wednesday, August 25, 2021 5:40 PM (20 minutes)

Presenter: ROLOFF, Jennifer Kathryn (Brookhaven National Laboratory (US))

Session Classification: Effective Field Theories I

Contribution ID: 35

Type: **not specified**

YSF: High-energy EFT probes: the DY process

Thursday, August 26, 2021 10:45 AM (15 minutes)

Presenter: RICCI, Lorenzo

Session Classification: Effective Field Theories II

Contribution ID: 36

Type: **not specified**

Comparison of EFT and UV-complete models

Thursday, August 26, 2021 12:00 PM (30 minutes)

Presenters: ZEPPENFELD, Dieter (Karlsruhe University); ZEPPENFELD, Dieter (KIT, Karlsruhe)

Session Classification: Effective Field Theories III

Contribution ID: 37

Type: **not specified**

Electroweak symmetry-breaking sector at high energy and HEFT

Thursday, August 26, 2021 12:30 PM (30 minutes)

Presenter: LLANES-ESTRADA, Felipe J.

Session Classification: Effective Field Theories III

Contribution ID: **38**

Type: **not specified**

VBF and Multi-bosons at future lepton colliders

Thursday, August 26, 2021 4:30 PM (45 minutes)

Presenters: HAN, Tao (University of Pittsburgh); HAN, Tao (University of Wisconsin)

Session Classification: Closing session

Contribution ID: 39

Type: **not specified**

YSF: Muon Yukawa using multibosons at the Muon Collider

Thursday, August 26, 2021 3:40 PM (15 minutes)

Presenter: KREHER, Nils

Session Classification: Hot topics and recent results

Contribution ID: 40

Type: **not specified**

Summary and prospects

Thursday, August 26, 2021 5:15 PM (45 minutes)

Presenter: MARIOTTI, Chiara (INFN Torino (IT))

Session Classification: Closing session

Contribution ID: 41

Type: **not specified**

ZZ production at nNNLO+PS with MiNNLO_PS

Thursday, August 26, 2021 3:00 PM (20 minutes)

Presenter: KOOLE, Gabriel

Session Classification: Hot topics and recent results

Contribution ID: 42

Type: **not specified**

Catching Heavy Vector Triplets with the SMEFT

Thursday, August 26, 2021 3:20 PM (20 minutes)

Presenter: GEOFFRAY, Emma (Heidelberg University)

Session Classification: Hot topics and recent results

Contribution ID: 43

Type: **not specified**

Welcome

Monday, August 23, 2021 1:50 PM (10 minutes)

Presenter: GOVONI, Pietro (Universita & INFN, Milano-Bicocca (IT))

Session Classification: Opening session

Contribution ID: 44

Type: **not specified**

WG1 report

Friday, August 27, 2021 9:20 AM (20 minutes)

Presenters: BRIVIO, Ilaria (University of Heidelberg); PELLEN, Mathieu (University of Freiburg)

Session Classification: VBSCan Management Committee meeting

Contribution ID: 45

Type: **not specified**

WG2 report

Friday, August 27, 2021 9:40 AM (20 minutes)

Presenters: SLAWINSKA, Magdalena (Polish Academy of Sciences (PL)); COVARELLI, Roberto (University/INFN Torino (IT))

Session Classification: VBSCan Management Committee meeting

Contribution ID: 46

Type: **not specified**

WG3 report

Friday, August 27, 2021 10:00 AM (20 minutes)

Presenters: ORTONA, Giacomo (Universita e INFN Torino (IT)); SOMMER, Philip (University of Sheffield (GB))

Session Classification: VBSCan Management Committee meeting

Contribution ID: 47

Type: **not specified**

WG4 and 5 report

Friday, August 27, 2021 10:20 AM (20 minutes)

Presenters: PETRIDOU, Chariclia (Aristotle University of Thessaloniki (GR)); PULJAK, Ivica (Technical University of Split FESB); OZDEMIR, Kadri (Piri Reis University (TR)); LOHWASSER, Kristin (University of Sheffield (GB))

Session Classification: VBSCan Management Committee meeting

Contribution ID: 48

Type: **not specified**

closing remarks

Friday, August 27, 2021 10:40 AM (20 minutes)

Presenters: ZARO, Marco (Università degli Studi e INFN Milano (IT)); GOVONI, Pietro (Università & INFN, Milano-Bicocca (IT))

Session Classification: VBSCan Management Committee meeting

Contribution ID: 49

Type: **not specified**

Update from the COST Association

Friday, August 27, 2021 9:00 AM (20 minutes)

Presenter: STÜBNER, Ralph

Session Classification: VBSCan Management Committee meeting

Contribution ID: 50

Type: **not specified**

Round table

Friday, August 27, 2021 11:30 AM (20 minutes)

Presenter: BRIVIO, Ilaria (University of Heidelberg)

Session Classification: Future COST proposal