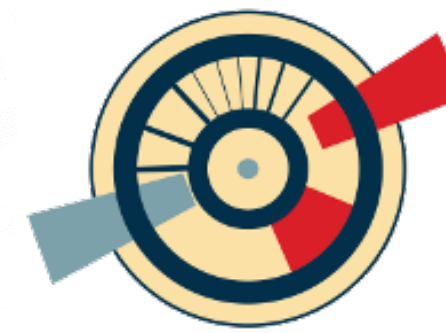# VBSCan and Snowmass present:

Winter 2021 Workshop on the future of VBS studies

Pietro Govoni, Università and INFN Milano-Bicocca
January 2021

the meeting agenda

	25 Jan 2021	26 Jan 2021	28 Jan 2021	29 Jan 2021
AM				
PM	**14:00** **LHC** (until 15:45) ()	**14:00** **LHC** (until 15:40) ()	**14:00** **beyond LHC** (until 15:30) ()	**14:00** **beyond LHC** (until 15:30) ()
	14:00 Welcome - Pietro Govoni (Universita & INFN, Milano-Bicocca (IT)) ()	14:00 lessons learned from LHC data up to now, and outlook - Marc Riembau (Université de Genève) ()	14:00 The VBS viewpoint on the EFT landscape - Dr Raquel Gomez Ambrosio (IPPP Durham (GB)) ()	14:00 future muon colliders and BSM with VBS - Antonio Costantini (INFN) ()
	14:15 Precise theoretical predictions for VBS - Ansgar Denner (Julius Max. Universitaet Wuerzburg (DE)) ()	14:30 HL-LHC performance CMS - Matteo Marchegiani (ETH Zurich (CH)) ()	14:30 SM EFT effects in Vector-Boson Scattering at the LHC - Michal Szleper (National Centre for Nuclear Research (PL)) ()	14:30 future electron colliders and the VBS physics - Jürgen Reuter (DESY Hamburg, Germany) ()
	14:45 ATLAS VBS Results - Joany Manjarres (Technische Universitaet Dresden (DE)) ()	14:50 HL-LHC performance ATLAS - Karolos Potamianos (University of Oxford (GB)) ()	15:00 Detecting anomaly in vector boson scattering - Jinmian Li (University of Adelaide) ()	15:00 future muon colliders and EFT with VBS - Luca Mantani (UCLouvain) ()
	15:15 CMS VBS results - Kenneth Long (CERN) ()	15:10 MC challenges and implementation of EW shower in VINCIA - Rob Verheyen ()	15:30 --- Break/Discussion ---	15:30 --- Break/Discussion ---
	15:45 --- Break/discussion ---		**16:00** **beyond LHC** (until 17:30) ()	**16:00** **beyond LHC** (until 17:30) ()
	16:15 **LHC** (until 17:30) ()	15:40 --- Break/Discussion ---	16:00 An overview of future pp colliders - Patrizia Azzi (INFN Padova (IT)) ()	16:00 Double Higgs Boson Production from Resonances in Longitudinal VBS at a 100 TeV Collider - Ashutosh Kotwal (Duke University) ()
	16:15 Review of ATLAS projections on VBS - Kristin Lohwasser (University of Sheffield (GB)) ()	**16:00** **LHC** (until 17:30) ()		
		16:00 New physics at LH-LHC with VBS signatures - Richard Ruiz (Fermi National Accelerator Lab. (US)) ()	16:30 axion-like particle searches with VBS - Jorge Fernandez De Troconiz (Universidad Autonoma de Madrid (ES)) ()	16:30 Accuracy and uncertainties in Monte Carlo simulations - Simon Platzer (University of Vienna (AT)) ()
	16:45 Review of CMS projections on VBS - Flavia Cetorelli (Universita & INFN, Milano-Bicocca (IT)) ()	16:30 Machine Learning for VBS - Thea Aarrestad (CERN) ()	17:00 electroweak pdfs - Keping Xie (University of Pittsburgh) ()	17:00 Fermion Loops in VBS - Mr Carlos Quezada Calonge (Universidad Complutense de Madrid) ()
	17:30 --- Break/Discussion ---	17:00 QCD-Aware Recursive Neural Networks for Jet Physics ()	17:30 --- Break/Discussion ---	17:30 --- Break/Discussion ---
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	14:45 ATLAS VBS Re... (Technische Ur... ()			15:00 future muon colliders and EFT with VBS - Luca

- there is ample time for discussion during talks and at the end of each session
- hope to trigger new studies on VBS at future colliders!

	15:15 CMS VBS resu... (CERN) ()			Discussion ---
	15:45 --- Bre...			()
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acknowledgements

- to the organisers and to the speakers!

Ilaria Brivio, Diogo Buarque Franzosi, Michele Gallinaro, Pietro Govoni, Joany Manjarres, Kristin Lohwasser, Raquel Gomez Ambrosio, Gabriela Pasztor, Richard Ruiz, Marco Zaro

VBSCan: a EU-funded experiment + theory working group targeting VBS studies

Everybody is welcome to join: just drop me an email (pietro.govoni@unimib.it) and visit our website:

https://vbscanaction.web.cern.ch