PDF4LHC with PHYSTAT

Report of Contributions

Contribution ID: **1**   Type: **not specified**

News from ATLAS

Tuesday, 7 October 2025 09:00 (20 minutes)

Presenter: CONROY, Eimear Isobel (University of Oxford (GB))

Contribution ID: **2**   Type: **not specified**

News from LHCb

Tuesday, 7 October 2025 09:20 (20 minutes)

Presenter: LI, Jiuzhao (Central China Normal University CCNU (CN))

Contribution ID: **3**   Type: **not specified**

News from CMS

Tuesday, 7 October 2025 09:40 (20 minutes)

Presenter: SAVOIU, Daniel (Hamburg University (DE))

Contribution ID: **4** Type: **not specified**

ABMP update

Tuesday, 7 October 2025 10:05 (20 minutes)

Presenter: GARZELLI, Maria Vittoria (DESY)

Contribution ID: **5** Type: **not specified**

NNPDF update

Tuesday, 7 October 2025 11:55 (20 minutes)

Presenter: GIANI, Tommaso

Contribution ID: **6** Type: **not specified**

MSHT update

Tuesday, 7 October 2025 11:15 (20 minutes)

Presenter: Dr HARLAND-LANG, Lucian Alexander (University College London)

Contribution ID: **7**   Type: **not specified**

CT update

Tuesday, 7 October 2025 11:35 (20 minutes)

Presenter: HUSTON, Joey (Michigan State University (US))

Contribution ID: **8**
Type: **not specified**

JAM update

Tuesday, 7 October 2025 17:20 (20 minutes)

Presenter: ANDERSON, Trey (William and Mary)

Contribution ID: **9** Type: **not specified**

Update of Hoppet

Presenter: Dr KARLBERG, Alexander (CERN)

Session Classification: PDF4LHC meeting

Contribution ID: **10** Type: **not specified**

QED-enhanced PDF implications for the Higgs secto

Session Classification: PDF4LHC meeting

Contribution ID: **11** Type: **not specified**

MSHT uncertainties

Session Classification: PDF4LHC meeting

Contribution ID: **12** Type: **not specified**

higher twists

Session Classification: PDF4LHC meeting

Contribution ID: **13** Type: **not specified**

CT uncertainties

Session Classification: PDF4LHC meeting

Contribution ID: **14** Type: **not specified**

A Linear PDf model for Bayesian Inference

Session Classification: PDF4LHC meeting

Contribution ID: **15**

Type: **not specified**

Alternative error propagation

Session Classification: PDF4LHC meeting

Contribution ID: **16** Type: **not specified**

N3LO studies in xFitter

Tuesday, 7 October 2025 14:20 (20 minutes)

Presenter: Dr GIULI, Francesco (INFN e Universita Roma Tor Vergata (IT))

Contribution ID: **17**   Type: **not specified**

Welcome

Monday, 6 October 2025 08:45 (10 minutes)

Presenters: BRENNER, Lydia (Nikhef National institute for subatomic physics (NL)); BEHNKE, Olaf (Deutsches Elektronen-Synchrotron (DE)); BEHNKE, Olaf (DESY)

Session Classification: PHYSTAT session

Contribution ID: 18 Type: **not specified**

PDF fitting overview

Monday, 6 October 2025 09:00 (40 minutes)

Presenter: Dr HARLAND-LANG, Lucian Alexander (University College London)

Session Classification: PHYSTAT session

Contribution ID: **19**
Type: **not specified**

Session 1: Uncertainty quantification in practice, a dialogue between Pavel Nadolsky and Josh Bendavid: perspectives on the PDF tolerance from the vantage points of PDF fitters and experimentalists working on EW precision measurements.

Monday, 6 October 2025 09:45 (40 minutes)

Presenters: BENDAVID, Josh (CERN); Prof. NADOLSKY, Pavel (Michigan State University)

Session Classification: PHYSTAT session

Contribution ID: **20**   Type: **not specified**

Session 2: Detecting an treating inconsistent data, a dialogue between Mark Constantini and Sofia Olhede

Monday, 6 October 2025 11:30 (40 minutes)

Presenters: COSTANTINI, Mark; OLHEDE, sofia

Session Classification: PHYSTAT session

Contribution ID: **21**   Type: **not specified**

Session 3: PDF parametrisation and model uncertainty, a dialogue between Aurore Courtoy and Chad Schafer

Monday, 6 October 2025 14:00 (40 minutes)

Presenters: COURTOY, Aurore; COURTOY, Aurore (Instituto de Física, UNAM); SCHAFER, Chad

Session Classification: PDF4LHC meeting

Contribution ID: **22** Type: **not specified**

Highlight talk: A Theory of almost Everything—Statistically Speaking

Monday, 6 October 2025 15:10 (45 minutes)

Presenter: Prof. MENG, Xiao-Li (Harvard University)

Session Classification: PDF4LHC meeting

Contribution ID: **23** Type: **not specified**

Session 4: Fit complexity and nuisance parameters, a dialogue between Bogdan Malaescu and David van Dyk

Monday, 6 October 2025 16:25 (40 minutes)

Presenters: MALAESCU, Bogdan (LPNHE-Paris CNRS/IN2P3 (FR));   VAN DYK, David

Session Classification: PDF4LHC meeting

Contribution ID: 24 Type: **not specified**

Wrap-up

Monday, 6 October 2025 17:35 (15 minutes)

Presenters: Prof. NADOLSKY, Pavel (Michigan State University); THORNE, Robert Samuel (University College London (UK))

Session Classification: PDF4LHC meeting

Contribution ID: 25 Type: **not specified**

MSHT uncertainties

Tuesday, 7 October 2025 15:25 (20 minutes)

Presenter: THORNE, Robert Samuel (University College London (UK))

Contribution ID: **26** Type: **not specified**

CT uncertainties

Tuesday, 7 October 2025 16:15 (20 minutes)

Presenter: MOHAN, Kirtimaan Ajaykant

Contribution ID: 27   Type: **not specified**

Higher Twists

Tuesday, 7 October 2025 16:35 (20 minutes)

Presenter: BALL, Richard

Contribution ID: **28** Type: **not specified**

QED-enhanced PDF implications for the Higgs sector

Tuesday, 7 October 2025 17:00 (20 minutes)

Presenter: PONCE CHAVEZ, Max

Contribution ID: **29** Type: **not specified**

Hoppet v2: Fast and accurate parton evolution in the LHC precision era

Tuesday, 7 October 2025 14:45 (20 minutes)

Presenter: Dr KARLBERG, Alexander (CERN)

Contribution ID: **30** Type: **not specified**

A linear PDF model for Bayesian Inference

Tuesday, 7 October 2025 10:25 (20 minutes)

Presenter: COSTANTINI, Mark

Contribution ID: **31**   Type: **not specified**

Colibri: a general open source tool for Bayesian PDF fits (and more)

Tuesday, 7 October 2025 12:20 (20 minutes)

Presenter: SCHUTZE, Valentina

Contribution ID: **32**

Type: **not specified**

Session 1: Uncertainty quantification in practice, response from statisticians and audience

Monday, 6 October 2025 10:30 (30 minutes)

Presenter: BRENNER, Lydia (Nikhef National institute for subatomic physics (NL))

Session Classification: PHYSTAT session

Contribution ID: 33   Type: **not specified**

Session 2: Detecting an treating inconsistent data, response from audience

Monday, 6 October 2025 12:10 (30 minutes)

Presenter: THORNE, Robert Samuel (University College London (UK))

Session Classification: PHYSTAT session

Contribution ID: 34   Type: **not specified**

Session 3: PDF parametrisation and model uncertainty, response from audience

Monday, 6 October 2025 14:40 (30 minutes)

Presenter: SARKAR, Amanda (University of Oxford (GB))

Session Classification: PDF4LHC meeting

Contribution ID: 35 Type: **not specified**

Session 4: Fit complexity and nuisance parameters, response from audience

Monday, 6 October 2025 17:05 (30 minutes)

Presenter: BEHNKE, Olaf (Deutsches Elektronen-Synchrotron (DE))

Session Classification: PDF4LHC meeting

Contribution ID: **36**   Type: **not specified**

Precision measurements of the EW mixing angle

Tuesday, 7 October 2025 14:00 (20 minutes)

Presenter: SEO, Hyon San (University of Rochester (US))

Contribution ID: **37**   Type: **not specified**

Two mass 3-loop corrections to DIS: structure functions and VFNS

Tuesday, 7 October 2025 15:05 (20 minutes)

Presenter: SCHÖNWALD, Kay

Contribution ID: **38**   Type: **not specified**

nCTEQ25

Tuesday, 7 October 2025 17:40 (20 minutes)

Presenter: KLASEN, Michael

Contribution ID: **39**

Type: **not specified**

PDF Uncertainties: the Markov Chain Monte-Carlo approach

Tuesday, 7 October 2025 12:40 (20 minutes)

Presenter: RISSE, Peter (Southern Methodist University)