

Mathieu Pellen

Universität Freiburg, Physikalisches Institut
Hermann-Herder-Straße 3, D-79104 Freiburg
mathieu.pellen@physik.uni-freiburg.de | +49-761-203-7617

Date and place of birth: 4th of June 1987 in Brest, France
Nationality, Gender, Status: French, Male, Married
Languages: French (native), English (fluent), German (fluent)

Research Positions

- | | |
|-----------------|--|
| 10/20 - present | Postdoctoral researcher / future Habilitation candidate
Physics Institute, University of Freiburg (Germany) |
| 10/18 - 09/20 | Research associate
Cavendish laboratory, University of Cambridge (United Kingdom) |
| 10/15 - 09/18 | Postdoctoral researcher
Institute for Theoretical Physics und Astrophysics, University of Würzburg (Germany) |
| 10/11 - 09/15 | PhD student
<i>Precision Calculations for Physics Beyond the Standard Model</i> ,
Supervisor: Michael Krämer - RWTH Aachen (Germany) |
| 03 - 08/11 | Master student
<i>Energy and momentum conservation rules for the intersection of branes</i>
Supervisor: David Wands - ICG, University of Portsmouth (United Kingdom) |
| 06 - 08/10 | Bachelor student
<i>Modelling proton-proton collisions at the LHC</i>
Supervisor: Arthur Moraes - University of Glasgow (United Kingdom) |
| 07 - 08/09 | Summer student
<i>Calculations for Coupling of a SQUID with a coplanar resonant line</i>
Supervisor: Olivier Buisson - Institut Néel (CNRS), Grenoble (France) |

Education

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|---------------|---|
| 10/11 - 06/15 | PhD in natural science
Institute for Theoretical Particle Physics and Cosmology,
RWTH Aachen University (Germany) |
| 09/10 - 09/11 | International Master in Subatomic and Astroparticle Physics
Joseph Fourier University / LPSC (CNRS), Grenoble (France) |
| 09/08 - 09/11 | Master in Physics and Nanoscience
Grenoble Institute of Technology (France) |
| 09/05 - 09/08 | Classe préparatoire aux Grandes écoles (equivalent to first and second year of university)
Lycée de Kérichen, Brest (France) |

Articles:

- [1] R. Covarelli, M. Pellen and M. Zaro, *Vector-Boson Scattering at the LHC: unravelling the Electroweak sector, Invited review IJMPA* (2021) [2102.10991].
- [2] M. Czakon, A. Mitov, M. Pellen and R. Poncelet, *NNLO QCD predictions for $W+c$ -jet production at the LHC, Submitted to JHEP* (2020) [2011.01011].
- [3] A. Denner, R. Franken, M. Pellen and T. Schmidt, *NLO QCD and EW corrections to vector-boson scattering into ZZ at the LHC, JHEP* **11** (2020) 110 [2009.00411].
- [4] A. Denner, J.-N. Lang and M. Pellen, *Full NLO QCD corrections to off-shell $t\bar{t}b\bar{b}$ production, Submitted to JHEP* (2020) [2008.00918].
- [5] F. A. Dreyer, A. Karlberg, J.-N. Lang and M. Pellen, *Precise predictions for double-Higgs production via vector-boson fusion, Eur. Phys. J.* **C80** (2020), no. 11 1037 [2005.13341].
- [6] S. Bräuer, A. Denner, M. Pellen, M. Schönherr and S. Schumann, *Fixed-order and merged parton-shower predictions for WW and WWj production at the LHC including NLO QCD and EW corrections, JHEP* **10** (2020) 159 [2005.12128].
- [7] M. Pellen, *Exploring the scattering of vector bosons at LHCb, Phys. Rev.* **D101** (2020), no. 1 013002 [1908.06805].
- [8] A. Denner, S. Dittmaier, M. Pellen and C. Schwan, *Low-virtuality photon transitions $\gamma^* \rightarrow f\bar{f}$ and the photon-to-jet conversion function, Phys. Lett. B* **798** (2019) 134951 [1907.02366].
- [9] M. Chiesa, A. Denner, J.-N. Lang and M. Pellen, *An event generator for same-sign W -boson scattering at the LHC including electroweak corrections, Eur. Phys. J.* **C79** (2019), no. 9 788 [1906.01863].
- [10] A. Denner, S. Dittmaier, P. Maierhöfer, M. Pellen and C. Schwan, *QCD and electroweak corrections to WZ scattering at the LHC, JHEP* **06** (2019) 067 [1904.00882].
- [11] L. Di Menza, J.-P. Nicolas and M. Pellen, *A new type of charged black hole bomb, Gen. Rel. Grav.* **52** (2020), no. 1 8 [1903.02941].
- [12] A. Ballestrero et. al., *Precise predictions for same-sign W -boson scattering at the LHC, Eur. Phys. J.* **C78** (2018), no. 8 671 [1803.07943].
- [13] A. Denner and M. Pellen, *Off-shell production of top-antitop pairs in the lepton+jets channel at NLO QCD, JHEP* **02** (2018) 013 [1711.10359].
- [14] B. Biedermann, A. Denner and M. Pellen, *Complete NLO corrections to W^+W^+ scattering and its irreducible background at the LHC, JHEP* **10** (2017) 124 [1708.00268].
- [15] B. Biedermann, S. Bräuer, A. Denner, M. Pellen, S. Schumann and J. M. Thompson, *Automation of NLO QCD and EW corrections with Sherpa and Recola, Eur. Phys. J.* **C77** (2017) 492 [1704.05783].
- [16] A. Denner, J.-N. Lang, M. Pellen and S. Uccirati, *Higgs production in association with off-shell top-antitop pairs at NLO EW and QCD at the LHC, JHEP* **02** (2017) 053 [1612.07138].
- [17] L. Ali Cavazonza, H. Gast, M. Krämer, M. Pellen and S. Schael, *Constraints on leptophilic dark matter from the AMS-02 experiment, Astrophys. J.* **839** (2017), no. 1 36 [1612.06634].
- [18] B. Biedermann, A. Denner and M. Pellen, *Large electroweak corrections to vector-boson scattering at the Large Hadron Collider, Phys. Rev. Lett.* **118** (2017), no. 26 261801 [1611.02951].
- [19] A. Denner and M. Pellen, *NLO electroweak corrections to off-shell top-antitop production with leptonic decays at the LHC, JHEP* **08** (2016) 155 [1607.05571].
- [20] C. Arina, M. Backović, E. Conte, B. Fuks, J. Guo, J. Heisig, B. Hespel, M. Krämer, F. Maltoni, A. Martini, K. Mawatari, M. Pellen and E. Vryonidou, *A comprehensive approach to dark matter studies: exploration of simplified top-philic models, JHEP* **11** (2016) 111 [1605.09242].
- [21] J. Heisig, M. Krämer, M. Pellen and C. Wiebusch, *Constraints on Majorana Dark Matter from the LHC and IceCube, Phys. Rev.* **D93** (2016), no. 5 055029 [1509.07867].

- [22] M. Backović, M. Krämer, F. Maltoni, A. Martini, K. Mawatari and M. Pellen, *Higher-order QCD predictions for dark matter production at the LHC in simplified models with s-channel mediators*, *Eur. Phys. J.* **C75** (2015), no. 10 482 [1508.05327].
- [23] L. Ali Cavazonza, M. Krämer and M. Pellen, *Electroweak fragmentation functions for dark matter annihilation*, *JCAP* **1502** (2015), no. 02 021 [1409.8226].
- [24] R. Gavin, C. Hangst, M. Krämer, M. Mühlleitner, M. Pellen, E. Popenda and M. Spira, *Squark Production and Decay matched with Parton Showers at NLO*, *Eur. Phys. J.* **C75** (2015), no. 1 29 [1407.7971].
- [25] M. Pellen, *Conservation laws for colliding branes with induced gravity*, *Astrophys. Space Sci.* **357** (2015), no. 1 24 [1309.6750].
- [26] R. Gavin, C. Hangst, M. Krämer, M. Mühlleitner, M. Pellen, E. Popenda and M. Spira, *Matching Squark Pair Production at NLO with Parton Showers*, *JHEP* **10** (2013) 187 [1305.4061].

Proceedings and Reports:

- [1] M. Pellen, *Vector bosons and jets at the LHC*, Eighth Annual Conference on Large Hadron Collider Physics-LHCP2020, 25-30 May. [arXiv:2009.12236 [hep-ph]].
- [2] J. Baglio *et al.*, *VBSCan Mid-Term Scientific Meeting*, [arXiv:2004.00726 [hep-ph]].
- [3] S. Amoroso *et al.*, *Les Houches 2019: Physics at TeV Colliders: Standard Model Working Group Report*, [arXiv:2003.01700 [hep-ph]].
- [4] A. Denner, J.-N. Lang, M. Pellen and S. Uccirati, *NLO QCD + electroweak predictions for off-shell $t\bar{t}H$ production at the LHC*, [arXiv:1912.08493 [hep-ph]].
- [5] R. Bellan *et al.*, *VBSCan Thessaloniki 2018 Workshop Summary*, [arXiv:1906.11332 [hep-ph]].
- [6] P. Azzi *et al.*, *Standard Model Physics at the HL-LHC and HE-LHC*, [arXiv:1902.04070 [hep-ph]].
- [7] J. R. Andersen *et al.*, *Les Houches 2017: Physics at TeV Colliders Standard Model Working Group Report*, [arXiv:1803.07977 [hep-ph]].
- [8] C. F. Anders *et al.*, *Vector boson scattering: Recent experimental and theory developments*, *Rev. Phys.* **3**, 44 (2018) [arXiv:1801.04203 [hep-ph]].
- [9] A. Denner, J.-N. Lang, M. Pellen and S. Uccirati, *NLO QCD and EW corrections to processes involving off-shell top quarks*, *PoS RADCOR* **2017**, 060 (2017) [arXiv:1711.08910 [hep-ph]].
- [10] B. Biedermann, A. Denner and M. Pellen, *Electroweak corrections to vector-boson scattering*, *PoS RADCOR* **2017**, 072 (2017) [arXiv:1711.02932 [hep-ph]].
- [11] M. Pellen, *Automated computations of electroweak corrections using Sherpa+Recola*, 29th Rencontres de Blois on Particle Physics and Cosmology Blois, France, May 28-June 2, 2017 [arXiv:1709.05791 [hep-ph]].
- [12] B. Biedermann, A. Denner and M. Pellen, *NLO electroweak corrections to vector-boson scattering at the LHC*, *PoS DIS* **2017**, 164 (2018) [arXiv:1708.00646 [hep-ph]].
- [13] L. Ali Cavazonza, M. Krämer and M. Pellen, *Exploring Dark Matter with AMS-02 through Electroweak Corrections*, Proceedings, 11th Patras Workshop on Axions, WIMPs and WISPs (Axion-WIMP 2015): Zaragoza, Spain, June 22-26, 2015
- [14] J. Heisig and M. Pellen, *Dark Matter at the LHC and IceCube - a Simplified Model Interpretation*, Proceedings, 11th Patras Workshop on Axions, WIMPs and WISPs (Axion-WIMP 2015): Zaragoza, Spain, June 22-26, 2015 [arXiv:1509.08640 [hep-ph]].
- [15] R. Gavin, C. Hangst, M. Krämer, M. Mühlleitner, M. Pellen, E. Popenda and M. Spira, *Squark Production and Decay at NLO matched with Parton Showers*, *PoS DIS* **2014**, 125 (2014).
- [16] L. Ali Cavazonza, M. Krämer and M. Pellen, *Electroweak fragmentation functions for dark matter annihilation*, Proceedings, 10th Patras Workshop on Axions, WIMPs and WISPs (AXION-WIMP 2014): Geneva, Switzerland, June 29-July 4, 2014

Teaching - Supervision

- 2020-21 **Exercise manager** *Classical Electrodynamics* (in German) - University of Freiburg, Germany
→ Co-organiser of tutorials and designing of exercise sheets/exam
- 04/2019 **Lecture** *Standard model, higher orders, and VBF/VBS* - University of Pavia, Italy
→ PhD programme (10 hours)
- 04/2018 **Lecture** *Introduction to electroweak corrections*
→ *First EWSB spring school* (3 hours) - Maratea, Italy
- 2018 **Teaching assistant** *Classical Electrodynamics* (in German) - University of Würzburg, Germany
→ Exercise classes and designing of exercise sheets
- 2017-18 **Teaching assistant** *Advanced Quantum Field Theory* - University of Würzburg, Germany
→ Exercise classes and designing of exercise sheets
- 2015 **Teaching assistant** *Classical Mechanics* (in German) - RWTH Aachen, Germany
→ Exercise classes and corrections of students' sheets
- 2014 **Teaching assistant** *Quantum Mechanics* - RWTH Aachen, Germany
→ Exercise classes and corrections of students' sheets
- 2012-13 **Teaching assistant** *Classical Electrodynamics* - RWTH Aachen, Germany
→ Exercise classes and corrections of students' sheets
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- 2019-20 **Co-supervision** of a PhD student - University of Cambridge, United Kingdom
→ *Higher-order corrections*
- 2014-15 **Supervision** of two Master students - RWTH Aachen, Germany
→ *Indirect Dark-Matter detection*
- 2013 **Supervision** of two Bachelor students for their thesis - RWTH Aachen, Germany
→ *Supersymmetric quantum mechanics*
→ *Two Higgs doublet model*
- 2012 **Supervision** of two Master students for literature seminar - RWTH Aachen, Germany
→ *Extra dimension models*

Leadership - Scientific Management

- 2017-now **Working-group leader** of the VBSCan COST network
-
- 2021 **Group coordinator**, *Fall school for high-energy physics: Maria Laach*, Bad Honnef (Germany)
- 2021 **Convener**, *Les Houches workshop 2021: Physics at TeV Colliders*, Les Houches (France)
- 2021 **Session Chair**, *DPG Meeting* - QCD and electroweak interactions, Dortmund (Germany)
- 2020 **Organiser**, *Workshop on Effective Field Theory in Polarised VBS*, online
- 2020 **Programme organiser and Chair**, VBSCan meeting, Helsinki (Finland)
- 2019 **Programme organiser**, VBSCan meeting, Istanbul (Turkey)
- 2019 **Convener** of the EW session at LHCP 2019 - Puebla (Mexico)
- 2019 **Programme organiser and Chair**, VBSCan meeting, Ljubljana (Slovenia)
- 2018 **Programme organiser and Chair**, VBSCan meeting, Thessaloniki (Greece)
- 2018 **Programme organiser and Chair**, VBSCan meeting, CERN, Geneva (Switzerland)
- 2017 **Programme organiser and Chair**, VBSCan meeting, Split (Croatia)
-
- 2020 **Editor**, *VBSCan Mid-Term Scientific Meeting: proceedings* [2004.00726]
- 2019 **Editor**, *VBSCan Thessaloniki 2018 Workshop: proceedings* [1906.11332]

2018	Editor , <i>Vector-boson scattering: Recent experimental and theory developments</i> [1801.04203]
2017	Section coordinator , <i>Les Houches workshop 2017 Standard-Model report: Physics at TeV Colliders</i> [1803.07977]
2017-now	Referee for JHEP
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2019	Member of Scientific Committee of international workshop <i>BSM models in Vector-Boson Scattering processes</i> – Lisbon (Portugal)
2018-20	Representative of the United Kingdom in the VBSCAN COST action
2017-18	Representative of Germany in the VBSCAN COST action
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2020-now	Organiser of student research seminar (University of Freiburg)
2018-20	Organiser of weekly seminar (University of Cambridge)
2015-18	Organiser of weekly seminar (University of Würzburg)
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2020-now	Mentor of 3 PhD students

Funding

06/2020	Step 2 of the ERC Starting Grant 2020 call (ERC-2020-StG) Panel score: proposal of high quality. Not funded.
11/2019	Travel grant from COST EU agency - 800 Euros. One-week visit at University of Würzburg, Germany.
03/2017	Travel grant from COST EU agency - 1000 Euros. One-week visit at Nikhef - Amsterdam, Netherlands.
03/2011	Mobility grant Explo'RA, Rhone-Alpes region - 2000 Euros. Six-months project at University of Portsmouth, United Kingdom.
07/2010	Summer Studentship Scheme, University of Glasgow - 1000 Pounds. Three-months project at University of Glasgow, United Kingdom.

Invited Presentations

04/2021	<i>Vector-boson scattering at the LHC: unravelling the Electroweak sector</i> , Seminar , University of Freiburg (Germany) - invited .
03/2021	<i>Stress testing the Standard Model via vector-boson scattering at the LHC</i> , DPG Meeting, Dortmund (Germany) - invited topical talk .
12/2020	<i>Theoretical predictions for Higgs measurements at the LHC</i> , Seminar , Heidelberg (Germany) - invited .
11/2020	<i>Full NLO QCD corrections to off-shell $t\bar{t}b\bar{b}$ production</i> , Seminar , RWTH Aachen (Germany) - invited .
10/2020	<i>Multi-particle final states at 1-loop EW</i> , CEPC workshop, Shanghai (China) - invited .
07/2020	<i>Precise predictions for double-Higgs production via vector-boson fusion</i> , LHC-HH Subgroup Meeting (online) - invited .
05/2020	<i>Vector bosons plus jets at the LHC</i> , LHCP2020, Paris (France) - invited .

- 05/2020 *Theoretical predictions for processes with many legs at the LHC,*
Seminar, Milan (Italy) - **invited**.
- 01/2020 *Off-shell effects in tt and ttH production,*
Plenary, ZPW2020, Zurich (Switzerland) - **invited**.
- 11/2019 *Theoretical predictions for processes with many legs at the LHC,*
Seminar, Nikhef (Netherlands) - **invited**.
- 09/2019 *Theoretical predictions for ttH production - NLO QCD + NLO EW,*
Plenary, TOP2019, Beijing (China) - **invited**.
- 09/2019 *What can we do better: Precision electroweak,*
Plenary, ATLAS Standard-Model workshop, Belgrade (Serbia) - **invited**.
- 02/2019 *Theory predictions for vector-boson scattering at the LHC,*
Seminar, IPPP Durham (United Kingdom) - **invited**.
- 10/2018 *Vector-boson scattering at the LHC,*
Seminar, University of Cambridge (United Kingdom) - **invited**.
- 09/2018 *Production of top quark pairs at the LHC: NLO corrections and off-shell effects,*
Seminar, University of Zurich (Switzerland) - **invited**.
- 08/2018 *Theory input for VBS,*
QCD@LHC, Dresden (Germany) - **invited**.
- 07/2018 *Top quark at the LHC: NLO corrections and off-shell effects,*
Seminar, Desy Hamburg (Germany) - **invited**.
- 04/2018 *Theory developments in VBS simulations,*
Plenary, SM@LHC, Berlin (Germany) - **invited**.
- 03/2018 *Vector-boson scattering at the LHC,*
Seminar, University of Cambridge (United Kingdom) - **invited**.
- 02/2018 *High-precision description of VBS at the LHC,*
CMS meeting, CERN (Switzerland) - **invited**.
- 01/2018 *NLO corrections for processes involving off-shell top quarks,*
Seminar, Freiburg (Germany) - **invited**.
- 08/2017 *Status of EW NLO corrections for multi-boson processes,*
Plenary, MBI 2017, KIT / Karlsruhe (Germany) - **invited**.
- 05/2017 *Automatised computations of EW corrections using Sherpa+Recola,*
Rencontres de Blois 2017, Blois (France) - **invited**.
- 05/2017 *NLO EW corrections for processes involving off-shell top quarks,*
Seminar, Göttingen University (Germany) - **invited**.
- 04/2017 *Higgs production in association with off-shell top-antitop pairs at NLO EW and QCD,*
CMS generator meeting, CERN - Geneva, (Switzerland) - **invited**.
- 03/2017 *NLO electroweak corrections to off-shell top-antitop production with leptonic decays at the LHC,*
DPG Meeting - Münster University (Germany) - **invited**.
- 01/2015 *NLO accuracy for Supersymmetric processes at the LHC,*
Seminar - Würzburg University (Germany) - **invited**.
- 03/2013 *Basics of AdS / CFT correspondence,*
Seminar - Department of Mathematics - University of Brest (France) - **invited**.

Other Presentations

- 10/2020 *Off-shell effects for $t\bar{t}b\bar{b}$ at NLO QCD,*
Higgs Cross Section Working Group, $t\bar{t}H/tH$ subgroup.
- 02/2020 *Review of theoretical predictions for VBS,*
VBSCAN meeting, Helsinki (Finland).
- 11/2018 *Production of off-shell top pairs in the lepton+jets channel at NLO QCD,*
LHC top WG meeting, CERN (Switzerland).
- 10/2018 *NLO corrections to VBS,*
HL/HE-LHC WG1 Meeting, CERN (Switzerland).
- 11/2017 *EW, QCD, and interference contributions for VBS,*
Workshop Monte-Carlo description of VBS, Nikhef (Netherlands).
- 09/2017 *NLO QCD and EW corrections for processes involving off-shell top quarks,*
RADCOR 2017, St Gilgen (Austria).
- 06/2017 *Complete NLO corrections to $pp \rightarrow \mu^+\nu_\mu e^+\nu_e jj$,*
VBSCAN meeting, Split (Croatia).
- 06/2017 *EW corrections: Recola, Automation, VBS,*
Les Houches workshop: Physics at TeV Colliders, Les Houches (France).
- 04/2017 *Large electroweak corrections to vector-boson scattering at the LHC,*
DIS 2017 - Birmingham University (United Kingdom).
- 03/2017 *Higgs production in association with off-shell top-antitop pairs at NLO EW and QCD,*
DPG Meeting - Münster University (Germany).
- 08/2016 *NLO EW corrections to off-shell top quark pair production,*
QCD@LHC 2016 - Zurich (Switzerland).
- 12/2015 *Simplified models in Madgraph,*
LHC Dark Matter WG meeting - CERN - Geneva (Switzerland).
- 11/2015 *Precise predictions for Dark Matter production at the LHC,*
Helmholtz Alliance meeting Physics at the Terascale - Hamburg Desy (Germany).
- 10/2015 *Higher-order NLO-QCD predictions for dark matter production at the LHC,*
New Physics meeting - Bonn (Germany).
- 10/2015 *NLO predictions for Dark Matter production at the LHC,*
HAP meeting - Karlsruhe (Germany).
- 06/2015 *Exploring Dark Matter with AMS-02 through Electroweak Corrections,*
Patras Workshop - Zaragoza (Spain).
- 03/2015 *NLO accuracy and spin effects for squark-gluino production and decay,*
DPG Meeting - Wuppertal (Germany).
- 12/2014 *Supersymmetry: from the algebra to LHC phenomenology,*
Seminar - RWTH Aachen (Germany).
- 10/2014 *NLO accuracy for production and decay of squarks matched with parton shower,*
Theory meeting - BCTP Bonn (Germany).
- 09/2014 *NLO accuracy for production and decay of squarks matched with parton shower,*
Desy Theory Workshop - Desy Hamburg (Germany).
- 07/2014 *Next-to-leading order accuracy for production and decay of squarks and gluino,*
SUSY 2014 - University of Manchester (United Kingdom).

- 03/2014 *Next to leading order accuracy for production and decay of squarks and gluino*, DPG Meeting - Mainz University (Germany).
- 03/2013 *Supersymmetric Cascade Decays at Next-to-Leading Order: Squark decay*, DPG Meeting - TU Dresden (Germany).
- 02/2013 *Instanton and Strong CP problem*, Literature Seminar - RWTH Aachen (Germany).
- 08/2012 *Supersymmetric Cascade Decays at Next-to-Leading Order*, GK Berichtswache - Vaals (Netherlands).
- 05/2012 *Strong vs. Weak Electroweak symmetry breaking (AdS / CFT)*, Literature Seminar, RWTH Aachen (Germany).
- 08/2011 *Rules for colliding branes in higher-dimensions*, **Seminar**, ICG-Portsmouth (United Kingdom).
- 08/2010 *Modelling proton-proton collisions at the LHC*, **Seminar**, University of Glasgow (United Kingdom).

Posters

- 10/2016 *NLO electroweak corrections to off-shell top-antitop production with leptonic decays at the LHC*, 625. WE-Heraeus-Seminar - Bad Honnef (Germany).
- 08/2015 *Higher-order QCD predictions for dark matter production in simplified models*, 9th MCnet School - Spa (Belgium).
- 11/2014 *NLO accuracy for the production and decay of squarks and gluino*, 573. WE-Heraeus-Seminar - Bad Honnef (Germany).
- 08/2012 *Supersymmetric Cascade Decays at Next-to-Leading Order*, 40th SLAC Summer Institute, SLAC-Stanford (USA).

Attendance of Scientific Schools

- 08/2015 9th MCnet School. Spa (Belgium).
- 09/2012 DPG School, *Heavy particles at the LHC*. Bad Honnef (Germany).
- 07/2012 40th SLAC Summer Institute, *The Electroweak Scale*. SLAC-Stanford (USA).
- 07/2011 Intensive course - Topics in Gravitation and Cosmology by Christian Boehmer. UCL-London (United Kingdom).

Attendance of international Conferences / Workshops

- 03/2021 DPG Spring Meeting TU Dortmund (Germany).
- 05/2020 LHCP2020, Paris (France).
- 01/2020 ZPW2020, Zurich (Switzerland).
- 09/2019 12th International Workshop on Top Quark Physics, Beijing (China).
- 09/2019 ATLAS Standard Model workshop, Belgrade (Serbia).
- 06/2019 Les Houches workshop: Physics at TeV Colliders. Les Houches (France).
- 05/2019 LHCP 2019. Puebla (Mexico).
- 02/2019 VBSCAN meeting. Ljubljana (Slovenia).
- 11/2019 LHC top WG meeting. CERN (Switzerland).

08/2018 QCD@LHC. Dresden (Germany).
 06/2018 VBSCAN meeting. Thessaloniki (Greece).
 04/2018 SM@LHC. Berlin (Germany).
 02/2018 VBSCAN meeting. CERN (Switzerland).
 09/2017 RADCOR 2017. St Gilgen (Austria).
 08/2017 MBI 2017. KIT Karlsruhe (Germany)
 06/2017 VBSCAN meeting. Split (Croatia).
 06/2017 Les Houches workshop. Les Houches (France).
 05/2017 Rencontres de Blois 2017. Blois (France)
 04/2017 DIS 2017. Birmingham University (United Kingdom).
 03/2017 DPG Meeting. Münster University (Germany).
 10/2016 625. WE-Heraeus-Seminar: *Interplay between precision measurements and searches for new physics*. Bad Honnef (Germany).
 08/2016 QCD@LHC 2016. Zurich (Switzerland).
 11/2015 Helmholtz Alliance meeting *Physics at the Terascale*. Desy Hamburg (Germany).
 10/2015 HAP Dark Matter 2015. KIT Karlsruhe (Germany).
 03/2015 Topical wokshop. *Anticipating 14 TeV: Insights into Matter from the LHC and Beyond*. Munich Insitute for Astro- and Particle Physcs (Germany).
 03/2015 11th Patras Workshop on Axions, WIMPs and WISPs. Zaragoza University (Spain).
 03/2015 Topical wokshop. *Effective theories and dark matter*. Mainz Institute for Theoretical Physics (Germany).
 03/2015 79th Annual Meeting of the DPG. Wuppertal University (Germany).
 10/2014 573. WE-Heraeus-Seminar: *Physics Landscape after the Higgs Discovery at the LHC*. Bad Honnef (Germany).
 09/2014 Desy Theory Workshop. Desy Hamburg (Germany).
 09/2014 Closing meeting Meeting of the SFB/TR 9. Durbach (Germany).
 07/2014 SUSY 2014. University of Manchester (United Kingdom).
 03/2014 78th Annual Meeting of the DPG. Mainz University (Germany).
 10/2013 20th Meeting of the SFB/TR 9 - Computational Particle Physics. KIT-Karlsruhe (Germany).
 09/2013 LHC run 1 aftermath - *Where theory meets experiment*. Bad Honnef (Germany).
 03/2013 19th Meeting of the SFB/TR 9 - Computational Particle Physics. RWTH Aachen (Germany).
 03/2013 77th Annual Meeting of the DPG. TU Dresden (Germany).
 10/2012 Strings, Cosmology and Gravity Student Conference 2012. IHP Paris (France).
 10/2012 18th Meeting of the SFB/TR 9 - Computational Particle Physics. HU Berlin (Germany).
 03/2012 17th Meeting of the SFB/TR 9 - Computational Particle Physics. KIT Karlsruhe (Germany).
 11/2011 16th Meeting of the SFB/TR 9 - Computational Particle Physics. RWTH Aachen (Germany).
 09/2011 Workshop on Theoretical Cosmology. ICG-Portsmouth (United Kingdom).
 09/2011 Cosmic (Super)Strings Meeting / UK Particle Cosmology meeting. ICG Portsmouth (United Kingdom).
 07/2011 The DES Collaboration Meeting 2011. ICG Portsmouth (United Kingdom).
 05/2011 UK Particle Cosmology meeting. DAMTP Cambridge (United Kingdom).