Matteo Fael

Curriculum Vitae

Dipartimento di Fisica e Astronomia
"Galileo Galilei"
via F. Marzolo 8
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Education

Ph.D. in Physics, *2011 – 2014*
(Dottorato di ricerca in Fisica)
Università degli Studi di Padova (I) & Universität Zurich (CH),
Joint doctorate: "*Electromagnetic dipole moments of fermions*"
Thesis defense: 18.03.2014,
Supervisors: **Dr. Massimo Passera, Prof. Thomas Gehrmann.**

Master's degree in Physics, *2008 – 2010*
(Laurea Magistrale in Fisica DM 270/04)
Università degli Studi di Padova (I)
Grade: 110/110 con Lode.

Bachelor's degree in Physics, *2005 – 2008*
(Laurea in Fisica DM 509/99)
Università degli Studi di Padova (I)
Grade: 106/110.

Research Positions

Ricercatore universitario tipo B, 11.2024 – today
Università degli Studi di Padova,
Dipartimento di Fisica e Astronomia.

Senior fellow, 10.2022 – 10.2024
CERN,
Department of Theoretical Physics, Geneva (CH).

Postdoctoral fellow, 10.2019 – 09.2022
Karlsruhe Institute of Technology,
Institute for Theoretical Particle Physics (TTP) Karlsruhe (D).

Postdoctoral fellow, 11.2017 – 09.2019
Universität Siegen,
Theoretical Particle Physics Group, Siegen (D).

Postdoctoral fellow, 10.2014 – 10.2017
Universität Bern,
Albert Einstein Center for Fundamental Physics, Bern (CH).

Research interests

- Flavour physics;
- Effective field theories in and beyond the Standard Model;
- Computational methods for Feynman integrals in perturbative QCD.

Grants and Awards

- Marie-Skłodowska Curie European Fellowship (European Research Executive Agency REA), Grant Agreement-101065445-PHOBIDE, CERN, Department of Theoretical Physics.
- Physics Letters B, "Most Valued Reviewer" Prize 2018 (Ed. G. Giudice).
- 2nd Conference on Charged Lepton Flavor Violation 2016, Best Theory Poster.

Teaching

Aug. 2023 **Discussion Leader**,
CERN-Fermilab school 2023, Coordinator of the student discussion group.
CERN (CH) `https://indico.cern.ch/event/1234112/`.

May. 2023 **Lecturer**,
Flavour physics, lecture series given at the Belle II Academy 2023,
Bad Kissingen (D) `https://indico.belle2.org/event/8268/`.

Jul. 2022 **Lecturer**,
Low-Energy Physics from the SMEFT, lecture series given at SMEFT Summer School 2022,
Siegen (D) `https://indico.icc.ub.edu/event/71/`.

Apr. 2022 – Jul. 2022 **Teaching Assistant**,
Programming in C++, Lecturer: Prof. A. Mildenberger
Karlsruhe Institute for Technology.

Sept. 2021 – Feb. 2022 **Teaching Assistant**,
Classical Electrodynamics, Lecturer Prof. M. Steinhauser
Karlsruhe Institute for Technology.

Lug. 2021 **Coordinator**,
Coordinator of the student seminars at the high-energy summer school *Maria Laach*
Bad Honnef (D) `https://www.maria-laach.tp.nt.uni-siegen.de/index.php`.

Apr. – Lug. 2021 **Teaching Assistant**,
Introduction to Flavour Physics, Lecturer Prof. U. Nierste
Karlsruhe Institute for Technology.

Set. 2020 – Feb. 2021 **Teaching Assistant**,
Quantum Mechanics 2, Lecturer Prof. M. Steinhauser
Karlsruhe Institute for Technology.

Mar. 2020– Lug. 2020 **Teaching Assistant**,
Theoretical Particle Physics I, Lecturer Prof. U. Nierste
Karlsruhe Institute for Technology.

Set. 2018– Feb. 2019 **Teaching Assistant**,
Theoretical Particle Physics II, Lecturer Dr. O. Cata
Universität Siegen.

Set. 2012– Dec. 2012 **Teaching Assistant**,
Quantum Field Theory III, Lecturer Prof. T. Gehrmann
Universität Zurich.

Gen. 2012– Giu. 2012 **Teaching Assistant**,
Quantum Field Theory II, Lecturer Prof. T. Gehrmann
Universität Zurich.

Publications

Authors are listed in alphabetical order, as usual in the high-energy physics community.

Preprint

[1] M. Egner, M. Fael, A. Lenz, M.L. Piscopo, A.V. Rusov, K. Schönwald, M. Steinhauser,
Total decay rates of B mesons at NNLO-QCD
arXiv: 2412.14035 [hep-ph].

[2] M. Fael, I. Milutin, K. K. Vos,
Kolya: an open-source package for inclusive semileptonic B decays
arXiv: 2409.15007 [hep-ph].

Publications in peer-reviewed scientific journals

[1] M. Egner, M. Fael, K. Schönwald, M. Steinhauser,
Nonleptonic B-meson decays to next-to-next-to-leading order.
JHEP 10 (2024) 144 [arXiv: 2406.19456 [hep-ph]].

[2] M. Fael, T. Huber, F. Lange, J. Müller, K. Schönwald, M. Steinhauser,
Heavy-to-light form factors to three loops.
Phys. Rev. D 110 (2024) 056011 [arXiv: 2406.08182 [hep-ph]].

[3] M. Fael, F. Herren,
NNLO QCD corrections to the q^2 spectrum of inclusive semileptonic B-meson decays.
JHEP 05 (2024) 287 [arXiv: 2403.03976 [hep-ph]].

[4] M. Fael, M. Prim, K. K. Vos,
Inclusive $B \to X_c \ell \bar{\nu}_\ell$ and $B \to X_u \ell \bar{\nu}_\ell$ decays: current status and future prospects
Eur. Phys. J. Spec. Top. (2024) 2, 325-346.

[5] M. Fael, J. Usovitsch,
Third order correction to semileptonic $b \to u$ decay: fermionic contributions
Phys.Rev.D 108 (2023) 114026 [arXiv: 2310.03685 [hep-ph]].

[6] M. Fael, F. Lange, K. Schönwald, M. Steinhasuer,
Three-loop $b \to s\gamma$ vertex with current-current operators
JHEP11 (2023) 166 [arXiv: 2309.14706 [hep-ph]].

[7] M. Egner, M. Fael, K. Schönwald, M. Steinhasuer,
Revisiting semileptonic B-meson decays at next-to-next-to-leading order
JHEP 09 (2023) 112 [arXiv: 2308.01346 [hep-ph]].

[8] M. Fael, F. Lange, K. Schönwald, M. Steinhasuer,
Massive three-loop form factors: anomaly contribution,
Phys. Rev. D 107 (2023) 094017 [arXiv: 2302.00693 [hep-ph]].

[9] M. Fael, M. Rahimi, K.K. Vos,
New physics contributions to moments of inclusive $b \to c$ semileptonic decays,
JHEP02 (2023) 086 [arXiv: 2205.03410 [hep-ph]].

[10] M. Fael, F. Lange, K. Schönwald, M. Steinhasuer,
Singlet and nonsinglet three-loop massive form factors,
Phys. Rev. D 106 (2022) 3, 034029 [arXiv: 2207.00027 [hep-ph]].

[11] F. Bernlochner, M. Fael, K. Olschewsky, E. Persson, R. van Tonder, K. Vos, M. Welsch,
First extraction of inclusive V_{cb} from q^2 moments,
JHEP 10 (2022) 068 [arXiv: 2205.10274 [hep-ph]].

[12] M. Fael, K. Schönwald, M. Steinhasuer,
A first glance to the kinematic moments of $B \to X_c \ell \nu$ at third order,
JHEP 08 (2022) 039 [arXiv: 2205.03410 [hep-ph]].

[13] M. Egner, M. Fael, F. Lange, K. Schönwald, M. Steinhasuer,
Three-loop nonsinglet matching coefficients for heavy quark currents,
Phys. Rev. D 105 (2022) 114007 [arXiv: 2203.11231 [hep-ph]].

[14] M. Fael, F. Lange, K. Schönwald, M. Steinhasuer,
Massive vector form factors to three loops,
Phys. Rev. Lett. 128 (2022) 172003 [arXiv: 2202.05276 [hep-ph]].

[15] M. Fael, F. Lange, K. Schönwald, M. Steinhasuer,
A semi-analytic method to compute Feynman integrals applied to four-loop corrections to the $\overline{\text{MS}}$*-pole quark mass relation*,
JHEP 09 (2021) 152 [arXiv: 2106.05296 [hep-ph]].

[16] M. Egner, M. Fael, J. Piclum, K. Schönwald, M. Steinhasuer,
Charm-quark mass effects in NRQCD matching coefficients and the leptonic decay of the Υ*(1S) meson*,
Phys. Rev. D 104 (2021) 054033 [arXiv: 2105.09332 [hep-ph]].

[17] M. Fael, K. Schönwald, M. Steinhasuer,
Third order corrections to the semi-leptonic $b \to c$ *and the muon decays*,
Phys. Rev. D 104 (2021) 016003 (*Editor's suggestion*)
[arXiv: 2011.13654 [hep-ph]]

[18] M. Fael, K. Schönwald, M. Steinhasuer,
On the relation between the $\overline{\text{MS}}$ *and the kinetic mass of heavy quarks*,
Phys.Rev.D 103 (2021) 014005 [arXiv: 2011.11655 [hep-ph]].

[19] M. Fael, K. Schönwald, M. Steinhasuer,
Exact results for Z_m^{OS} *and* Z_2^{OS} *with two mass scales and up to three loops*,
JHEP 2010 (2020) 087 [arXiv: 2008.01102 [hep-ph]].

[20] M. Fael, K. Schönwald, M. Steinhasuer,
Kinetic Heavy Quark Mass to Three Loops,
Phys. Rev. Lett. 125 (2020) 052003 [arXiv: 2005.06487 [hep-ph]].

[21] P. Banerjee, C. Carloni Calame, M. Chiesa, S. Di Vita, T. Engel, M. Fael, S. Laporta, P. Mastrolia, G. Montagna, O. Nicrosini, G. Ossola, M. Passera, F. Piccinini, A. Primo, J. Ronca, A. Signer, W. Torres Bobadilla, L. Trentadue, Y. Ulrich and G. Venanzoni,
Theory for muon-electron scattering at 10ppm: A report of the MUonE theory initiative,
Eur. Phys. J. C **80** (2020) 591 [arXiv:2004.13663 [hep-ph]].

[22] P. Blackston, M. Fael, E. Passemar,
$\tau \to \mu\mu\mu$ *at a rate of one out of* 10^{14} *tau decays?*,
Eur. Phys. J. C 80 (2020) 506 [arXiv:1912.09862 [hep-ph]].

[23] T. Aoyama, et al., *The anomalous magnetic moment of the muon in the Standard Model*,
Phys.Rept. 887 (2020) 1 [arXiv: 2006.04822 [hep-ph]].

[24] M. Fael, T. Mannel, K. K. Vos,
The heavy quark expansion for inclusive semileptonic charm decays revisited,
JHEP 1912 (2019) 067 [arXiv:1910.05234 [hep-ph]].

[25] M. Fael, M. Passera,
Muon-electron scattering at NNLO: the hadronic corrections,
Phys. Rev. Lett. 122 (2019) 192001 [arXiv:1901.03106 [hep-ph]].

[26] M. Fael, T. Mannel, K. K. Vos,
V_{cb} *determination from inclusive* $b \to c$ *decays: an alternative method,*
JHEP 1902 (2019) 177 [arXiv:1812.07472 [hep-ph]].

[27] M. Fael,
Hadronic corrections to μ*-e scattering at NNLO with space-like data,*
JHEP 1902 (2019) 027 [arXiv:1808.08233 [hep-ph]].

[28] M. Fael, T. Mannel,
On the decays $B \to K^{(*)}+$ leptonium,
Nucl.Phys. B 932 (2018) 370-384 [arXiv:1803.08880 [hep-ph]].

[29] J. Aebischer, M. Fael, C. Greub, J. Virto,
B physics Beyond the Standard Model at One Loop: Complete Renormalization Group Evolution below the Electroweak Scale,
JHEP 1709 (2017) 158 [arXiv:1704.06639 [hep-ph]].

[30] M. Fael, C. Greub,
Next-to-leading prediction for the decay $\mu \to e\,(e^+e^-)\,\nu\bar{\nu}$,
JHEP 1701 (2017) 084 [arXiv:1611.03726 [hep-ph]].

[31] S. Eidelman, D. Epifanov, M. Fael, L. Mercolli and M. Passera,
τ dipole moments via radiative leptonic τ decays,
JHEP 1603 (2016) 140 [arXiv:1601.07987 [hep-ph]].

[32] J. Aebischer, A. Crivellin, M. Fael and C. Greub,
Matching of gauge invariant dimension-six operators for $b \to s$ and $b \to c$ transitions,
JHEP 1605 (2016) 037 [arXiv:1512.02830 [hep-ph]].

[33] M. Fael, L. Mercolli and M. Passera,
Radiative μ and τ leptonic decays at NLO,
JHEP 1507 (2015) 153 [arXiv:1506.03416 [hep-ph]].

[34] M. Fael and M. Passera,
Positronium contribution to the electron g-2,
Phys. Rev. D 90 (2014) no.5, 056004 [arXiv:1402.1575 [hep-ph]].

[35] M. Fael, L. Mercolli and M. Passera,
W-propagator corrections to μ and τ leptonic decays,
Phys. Rev. D 88 (2013) no.9, 093011 [arXiv:1310.1081 [hep-ph]].

[36] M. Fael and T. Gehrmann,
Probing top quark electromagnetic dipole moments in single-top-plus-photon production,
Phys. Rev. D 88 (2013) 033003 [arXiv:1307.1349 [hep-ph]].

Conference Proceedings

[1] M. Fael, J. Usovitsch *Taming the N3LO corrections to semileptonic $b \to u$ decay*,
PoS LL2024 (2024) 005, Contribution to "Loops and Legs 2024".

[2] Editors: J. Aebischer, M. Fael, J. Fuentes-Martín, A. Eller Thomsen, J. Virto
Computing Tools for Effective Field Theories,
Eur.Phys.J.C 84 (2024) 2, 170 [arXiv:2307.08745 [hep-ph]]

.

[3] M. Fael, *Higher QCD corrections for inclusive semileptonic B decays*,
PoS LL2022 (2022) 017, Contribution to "Loops and Legs 2022".

[4] M. Fael, *Higher-order corrections to the kinetic mass definition for the bottom and the charm quarks*, SciPost Phys.Proc. 7 (2022) 026, contribution to "Radcor and LoopFest 2021" arXiv:2110.12695 [hep-ph].

[5] Editors: J. Aebischer, M. Fael, A. Lenz, M. Spannowsky, J. Virto, *Computing tools for the SMEFT,* arXiv:1910.11003 [hep-ph].

[6] M. Fael, F. Lange, K. Schönwald, M. Steinhauser, *A semi-numerical method for one-scale problems applied to the $\overline{\text{MS}}$-on-shell relation,* SciPost Phys.Proc. 7 (2022) 041, contribution to "Radcor and LoopFest 2021".

[7] M. Fael, *NLO prediction for the decays $\tau \to \ell\ell'\ell'\nu\bar{\nu}$ and $\mu \to eee\nu\bar{\nu}$,* SciPost Phys. Proc. 1 (2019) 009 [arXiv:1811.10965 [hep-ph]].

[8] M. Fael, $b \to s\mu^+\mu^-$ *and* $b \to c\tau\nu$ *in the SM EFT,* in *"PSI/UZH Workshop: Impact of* $B \to \mu^+\mu^-$ *on New Physics Searches,"* arXiv:1803.10097 [hep-ph].

[9] J. Aebischer, A. Crivellin, M. Fael and C. Greub, *1-Loop Matching of gauge invariant dim-6 operators for B decays,* PoS BEAUTY 2016 (2016) 064 [arXiv:1606.02588 [hep-ph]].

[10] M. Fael, *Radiative* τ *leptonic decays and the possibility to determine the* τ *dipole moments,* EPJ Web Conf. 118 (2016) 01012.

[11] M. Fael, *Radiative* μ *and* τ *leptonic decays,* J.Univ.Sci.Tech.China 46 (2016) 383.

[12] M. Fael and M. Passera, *Precision tests via radiative* μ *and* τ *leptonic decays,* PoS RADCOR 2015 (2015) 091, [arXiv:1602.00457 [hep-ph]].

[13] M. Fael and M. Passera, *On the positronium contribution to the electron g-2,* arXiv:1412.7714.

[14] M. Fael, L. Mercolli and M. Passera, *Towards a determination of the tau lepton dipole moments,* Nucl. Phys. Proc. Suppl. 253-255 (2014) 103 [arXiv:1301.5302 [hep-ph]].

White Papers

MUonE collaboration, *"Letter of Intent: the MUonE project,"* CERN-SPSC-2019-026 /SPSC-I-252. 05/06/2019

Ph.D. Thesis

M. Fael, *"Electromagnetic dipole moments of fermions,"* Università delgli Studi di Padova, Italy & Universität Zurich, Switzerland, 2014, `opac.nebis.ch/ediss/20142170.pdf`.

Commission of trusts

Referee for

- *European Physical Journal C (EPJC)* since Sept. 2019
- *Physics Review Letters (PRL)* since Aug. 2019
- *Physics Letters B (PLB)* since Dec. 2016
- *Physical Review D (PRD)* since Jun. 2016
- *Journal of High Energy Physics (JHEP)* since Jul. 2013

Student supervision

2020-2024 Co-supervisor of the Ph.D. student XXXXX YYYYY, 3 joint publications, Karlsruhe Institute of Technology.

2022 Co-supervisor of the bachelor student XXXXX YYYYY, Karlsruhe Institute of Technology

2020-2022 Co-supervisor of the Ph.D student XXXXX YYYYY, 1 joint publication Universität Siegen

2022 Co-supervisor of the Ph.D. student XXXXX YYYYY, 1 joint publication Universität Siegen & Indiana University (USA)

2022 Co-supervisor of the Ph.D. student XXXXX YYYYY, 2 joint publications Universität Bern

Conferences and workshops

I have given 18 invited seminars at world-class universities and research centers, 22 invited talks at international conferences and several other talks at international conferences and workshops, in addition to numerous informal seminars in my host institutes during the postdoctoral periods there. Below I report the most relevant contributions.

Invited plenary talks at international conferences

8–19/07/24 *Inclusive decays - synergies between lattice and continuum?*
Lattice@CERN 2024, CERN.

7–10/05/24 *Status of V_{ub}, V_{cb} determinations*
Standard Model at the LHC 2024, Rome, Italy.

15–19/04/24 *Taming the N3LO corrections to semileptonic $b \to u$ decay*
Loops & Legs in Quantum Field Theory 2024, Wittenberg, Germany.

30/10/23–3/11/23 *Loops in Inclusive determination,*
2023 Belle II Physics Week, KEK Tsukuba, Japan.

25–27/09/23 *A semi-analytic method for on-scale Feynman integrals,*
MathemAmplitudes 2023: QFT at the computational fronteer, Padova, Italy.

14–18/11/22 *QED and QCD Form Factors At Three Loops,*
The Evaluation of the Leading Hadronic Contribution to the Muon g-2: Toward the MUonE Experiment, MITP Mainz, Germany.

25–30/4/22 *Higher QCD corrections for inclusive semileptonic B decays,*
Loops & Legs in Quantum Field Theory, Ettal, Germany.

19–23/4/22 *Three loop calculations for inclusive semileptonic B decays,*
Challenges in Semileptonic B decays, Barolo, Italy.

7–18/3/22 *Inclusive Semileptonic Charm Decays,*
Charming Clues for Existence, MIAPP Munich, Germany.

22–26/11/21 *Inclusive observables in B and D meson semileptonic decay,*
CKM2021 11th International Workshop on the CKM Unitarity Triangle,
University of Melbourne, Australia.

27-30/09/21 *Third order correction to the muon lifetime,*
TAU2020 16th International Workshop on Tau Lepton Physics,
Indiana U. Bloomington (USA).

6–8/9/21 *Tau g-2 in tau decays and other probes of lepton flavour,*
Workshop on Anomalies and Precision in the Belle II Era, Vienna.

31/5–4/6/21 *The heavy quark expansion for inclusive semileptonic charm decays*
10th International Workshop on Charm Physics (CHARM2020), Mexico City (Mexico).

9–13/9/19 *Radiative corrections for MUonE,*
3rd Plenary Workshop of the Muon g-2 Theory Initiative, Seattle, USA.

12/8/19–6/9/19 *Heavy quark expansion for inclusive charm decays,*
INT program: heavy-quark physics and fundamental symmetries, Seattle, USA.

8–10/4/19 *V_{cb} dai decadimenti semileptonici inclusivi del B: un metodo alternativo,* Incontri di Fisica delle Alte Energie (IFAE 2019), Napoli.

25–26/3/19 *Recent advances in NNLO hadronic calculations,*
1st MUonE Collaboration meeting at CERN, CERN.

25/2–1/3/19 *Leptonic decays of the tau lepton,*
12th International Workshop on e^+e^- collisions from Phi to Psi, BINP Novosibirsk, Russia

19–23/2/18 *Hadronic NLO contributions to μ-e scattering,*
The Evaluation of the Leading Hadronic Contribution to the Muon Anomalous Magnetic Moment, MITP Mainz, Germania.

18–19/12/17 *$b \to s\ell\ell$ and $b \to c\ell\nu$ in the SMEFT.*
Impact of $B \to \mu\bar{\mu}$ on New Physics Searches, Paul Scherrer Institute, Svizzera.

10–12/9/15 *Radiative mu and tau leptonic decays and the possibility to determine the tau dipole moments,*
Workshop on flavour changing and conserving processes 2015, Anacapri.

13–15/10/13 *Towards a determination of the tau lepton dipole moments,* International Symposium on Lepton and Hadron Physics at Meson-Factories, Messina.

An exhaustive list includes also talks at international conferences and workshops at Challenges in Semileptonic decays 2024, ICHEP2024, CKM2023, MUonE collaboration meeting 2023, RADCOR2021, QWG2021 UC Davies, PSI 2019, Moriond QCD 2019, Zurich 2019, TAU 2018 Amsterdam, CHARM 2018 Novosibirsk, FPCP 2017 Prague, PSI 2016, CLFV U. Virginia 2016, Phi-Psi2015 China, TAU 2014 Aachen, Crakow 2014. LHCPhenoNet Paris 2014, Ravello 2013, Durham 2012.

Invited seminars at universities

14/03/24 *New numerical methods for Feynman integrals and their applications to B meson decays*,
Warsaw University (PL)

23/11/23 *A semi-analytic approach to one-scale Feynman integrals*,
Humboldt Universität zu Berlin (D)

20/11/23 *The MUonE Experiment*,
Cross collider talks, CERN (CH).

24/2/23 *A semi-analytic method for one-scale Feynman integrals*,
CERN (CH).

13/1/22 *Theory and experimental developments in inclusive $|V_{cb}|$*,
Brookhaven National Laboratory (USA).

13/12/21 *Towards the ultimate precision in inclusive $|V_{cb}|$*,
University of Vienna.

21/10/21 *Recent developments in the theory for inclusive $|V_{cb}|$*,
Technical University of Munich (TUM), Munich.

24/3/21 *Towards the ultimate precision in inclusive $|V_{cb}|$*,
Università di Trento.

19/11/20 *The MUonE project*,
University of Würzburg

18/08/20 *Towards the ultimate precision in $|V_{cb}|$*,
Università di Padova

11/07/19 *Theory for μ-e scattering at 10 ppm*,
Humboldt Universität zu Berlin

27/6/19 *A Swiss army knife for flavour physics,*
Technical University (TU) Dortmund.

25/6/19 *Theory for μ-e scattering at 10 ppm*,
Karlsruhe Institute of Technology

19/12/18 *$|V_{cb}|$ from inclusive $b \to c\ell\nu$ decays: an alternative method*,
Los Alamos National Lab (USA)

5/12/18 *$|V_{cb}|$ from inclusive $b \to c\ell\nu$ decays: an alternative method*,
Università di Padova

10/7/17 *SMEFT for B physics,*
Universität Siegen

14/12/15 *Positronium contribution to the electron g-2,*
École polytechnique fédérale (EPFL) Lausanne.

5/12/13 *Probing top quark electromagnetic dipole moments in single-top-plus-photon,*
Cross collider Talks, CERN

Organization of scientific meetings and schools

27-31/1/25 *Workshop* SMEFT-Tools 2025,
MITP, Mainz (D),
`https://indico.mitp.uni-mainz.de/event/395/`

15-19/7/24 *EFT 2024: School on Effective Field Theories and Phenomenology*,
University of Zurich, Zurich (CH),
`https://indico.icc.ub.edu/event/410/`.

8–12/5/23 Workshop *CERN TH Institute on Flavour Physics*,
CERN (CH),
`https://indico.cern.ch/event/1228965/`.

14–16/6/22 Workshop *SMEFT-Tools 2022*,
Pauli Center for Theoretical Studies, Zurich (CH),
`https://indico.icc.ub.edu/event/128/`.

2021 – 2022 Organizer of the seminars at the Institute of Theoretical Particle Physics,
Karlsruhe Institute of Technology, Karlsruhe (D).

26/10/20 Workshop *Heavy quark masses*,
Karlsruhe Institute of Technology, Karlsruhe (D),
`https://indico.scc.kit.edu/event/899/`.

12–14/6/19 Workshop *SMEFT-Tools 2019*,
Institute for Particle Physics Phenomenology (IPPP) Durham (UK),
`https://indico.cern.ch/event/787665/overview`.

Outreach

20/5/2024 Masterclass: *LHC: il più grande esperimento dopo il Big Bang*
Liceo "G.B. Brocchi," Bassano del Grappa (I)

27/3/2024 Outreach talk: *L'algoritmo che ha rivoluzionato la fisica delle particelle*
Centro Culturale "Due Mulini," Castelfranco Veneto (I)

17/4/2019 Masterclass: *Primo viaggio nel mondo delle particelle elementari*
Liceo "G.B. Brocchi," Bassano del Grappa (I)

14/3/2018 Masterclass: *Primo viaggio nel mondo della meccanica quantistica*
Liceo "G.B. Brocchi" e "J. Da Ponte," Bassano del Grappa (I)

17/2/2017 Masterclass: *Primo viaggio nel mondo della meccanica quantistica*
Liceo "G.B. Brocchi," Bassano del Grappa (I)

12/2/2016 Masterclass: *Primo viaggio nel mondo della meccanica quantistica*
Liceo "G.B. Brocchi," Bassano del Grappa (I)

Date: January 10, 2025
Place: Padova (I)

Matteo Fael