

## SUMMARY OF MY TEACHING ACTIVITIES

### International doctoral and post-doctoral teaching

- 2025 Lectures on new physics searches with effective field theories (1.5h) and LHC recasting (1.5h).  
Iwate Collider School 2025, Iwate, Japan, February 24 - March 1.
  - 2024 Lectures on dark matter at colliders (2h).  
Sun Yat-Sen University, China, December 11.
  - 2024 Lectures on Monte Carlo event generators and LHC recasting (6h).  
Chacal 2024 School on Computing in HEP and Applications (Johannesburg, South Africa), January 15-27.
  - 2023 Lectures on new physics and Monte Carlo event generators (8h).  
Université de Kinshasa, Democratic Republic of Congo, June 10-16.
  - 2022 Lectures on new physics and Monte Carlo event generators (6h).  
Université de Kinshasa, Democratic Republic of Congo, November 16-21.
  - 2022 Lectures on new physics searches with effective field theories (1.5 hour).  
KEK-IINAS Iwate Collider School, Iwate, Japan, March 21-26.
  - 2021 Lectures on dark matter at colliders (1 hour).  
Witwatersrand University, South Africa, October 20.
  - 2021 Lectures on dark matter at colliders (2 hours).  
10th IDPASC School, Nazaré, Portugal, September 6-17.
  - 2021 Lectures on beyond the Standard Model phenomenology: from new physics to events (1 hour).  
The MCNet Beijing School on Monte Carlo event generators, IHEP CAS, China, June 28 - July 2.
  - 2020 Lectures and tutorials on Beyond the Standard Model physics and MadAnalysis 5 (20 hours).  
The second MadANalysis 5 workshop on LHC recasting @ Korea, KIAS, South Korea, February 12-20.
  - 2020 Lectures on new physics and Monte Carlo event generators (2.5 hours).  
2020 High-Energy Particle Physics workshop, U. Venda, South Africa, January 30-31.
  - 2019 Lectures on beyond the Standard Model phenomenology with FeynRules and MadAnalysis 5 (4 hours).  
MadGraph school 2019 on collider phenomenology, IMSc. Chennai, India, November 18-22.
  - 2018 Lectures on beyond the Standard Model phenomenology: from new physics to events (4 hours).  
Feynrules-MadGraph school on collider phenomenology, USTC Hefei, China, November 19-23.
  - 2018 Lectures on beyond the Standard Model phenomenology: from new physics to events (2 hours).  
12th MCNet Summer School on event generator physics and techniques, Prato, Italy, July 23-27.
  - 2018 Lectures on special relativity, quantum mechanics and field theory (8 hours).  
5th African School of Fundamental Physics and Applications, Windhoek (Namibia), June 24 - July 14.
  - 2017 Lectures on beyond the Standard Model phenomenology with FeynRules and MadAnalysis 5 (5 hours).  
Dartmouth College (webinar), USA, October 23-27.
  - 2017 Lectures and tutorials on Beyond the Standard Model physics and MadAnalysis 5 (8 hours).  
The first MadANalysis 5 workshop on LHC recasting @ Korea, High 1, South Korea, August 20-27.
  - 2017 Lectures on Beyond the Standard Model phenomenology at the NLO in QCD (5 hours).  
RECAPP, HRI, Allahabad (India), April 3-6.
  - 2017 Lectures and tutorials on collider phenomenology and recasting studies with MADANALYSIS 5 (9.5 hours).  
*QCD and Collider Physics workshop*, Guwahati (India), March 27 - April 1.
  - 2015 Lectures and tutorials on new physics with FEYNRULES and MADANALYSIS 5 (14.5 hours).  
*MadGraph school on Collider Phenomenology*, Shanghai (China), November 23-27.
  - 2015 Lectures on Monte Carlo for new physics analyses at the LHC and their reinterpretations (4 hours).  
*2015 MCNet School*, Spa (Belgium), August 30 - September 4.
  - 2014 Workshop on MADGRAPH 5 and the Standard Model (9 hours).  
CERN Summer students 2014 program, CERN (Switzerland), July 15-17.
  - 2014 Lectures and tutorials on new physics with FEYNRULES and MADANALYSIS 5 (18 hours).  
3<sup>rd</sup> NCTS School on FEYNRULES-MADGRAPH for LHC physics, NTHU (Taiwan), June 16-21.
  - 2013 Lectures and tutorials on Beyond the Standard Model physics with MADANALYSIS 5 (6 hours).  
2<sup>nd</sup> Taipei School on FEYNRULES-MADGRAPH, Taipei (Taiwan), September 4-8.
  - 2013 Workshop on MADGRAPH 5 and the Standard Model (9 hours).  
CERN Summer students 2013 program, CERN (Switzerland), July 29-31.
  - 2012 Lectures and tutorials on FEYNRULES and MADANALYSIS 5 (12 hours).  
The FR/MG school on LHC Phenomenology, Natal (Brazil), September 30 - October 5.
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- 2011 Lectures and tutorials on FEYNRULES and the UFO format (30 hours).  
Korea Institute for Advanced Studies, Seoul (Korea), October 24-29.
- 2011 Lectures and exercise classes on electroweak theory (12 hours).  
Belgian Dutch German summer school, Hoenderloo (the Netherlands), September 26-30.
- 2011 Lectures on the Standard Model physics and beyond (6 hours).  
European Summer Campus, Strasbourg (France), July 6-13.
- 2011 Lectures and exercise classes on supersymmetry (45 hours).  
UC Louvain-la-Neuve (Belgium), February 28 - March 4 and January 24-28.

### Sorbonne Université (2015 - present)

- 2023 - present Quantum Field Theory: lectures and exercise classes (*Master 2*, 30 hours).
- 2024 - present Electromagnetism: lectures and exercise classes (*Bachelor 2 – intensive physics programme*, 48 hours).
- 2020 - 2024 Electromagnetism: lectures, exercise and lab classes (*Bachelor 2 – minor in physics programme*, 92 hours).
- 2022 - 2024 Research in Physics from Today and Tomorrow: conference and project organisation (*Bachelor 1*, 20 hours).
- 2018 - 2024 Beyond the Standard Model physics: lectures (*Master 2*, 15 hours).
- 2015 - 2017 Wave mechanics: exercise and lab classes (*Bachelor 2*, 48 hours).
- 2015 - 2016 Electromagnetism: exercise classes (*Bachelor 2*, 40 hours).

### University of Strasbourg (2008 - 2015, on leave from December 1<sup>st</sup>, 2012 to November 30<sup>th</sup>, 2014)

- 2014 - 2015 Lectures (*Master 2*, 20 hours): Theoretical Aspects of the Standard Model.
- 2014 - 2015 Lectures and exercise classes (*Bachelor 2*, 15 hours): Quantum mechanics.
- 2014 - 2015 Lectures and exercise classes (*Bachelor 2*, 35 hours): Electromagnetism.
- 2014 - 2015 Lectures and exercise classes (*Bachelor 1*, 30 hours): Wave mechanics.
- 2009 - 2012 Lectures (*Master 2*, 20 hours): Theoretical Aspects of the Standard Model.
- 2010 - 2012 Lectures and exercise classes (*Bachelor 2*, 70 hours): Electromagnetism.
- 2009 - 2012 Lectures (*Master 1*, 2 hours): Present research in Physics.
- 2009 - 2012 Lectures and exercise classes (*Bachelor 2*, 24 hours): Mathematical Methods for Physics III.
- 2008 - 2011 Exercise classes (*Master 1*, 18 hours): Numerical Methods in Physics.
- 2008 - 2010 Exercise classes (*Bachelor 3*, 18 hours): Scientific Calculus.
- 2008 - 2009 Exercise classes (*Master 1*, 18 hours): Quantum Physics.
- 2008 - 2009 Support classes (*Bachelor 1*, 24 hours): Material Point Mechanics.
- 2008 - 2009 Tutoring (*Bachelor 2*, 18 hours).

### Joseph Fourier University, Grenoble (2004 - 2007, 192 hours in total)

- 2005 - 2007 Lab classes (*Master 1*): Subatomic Physics.
  - 2005 - 2007 Exercise classes (*Bachelor 2*): Thermodynamics.
  - 2004 - 2007 Lab classes (*Master 2*): Nuclear Instrumentation.
  - 2004 - 2005 Lab classes and exercise classes (*Bachelor 1*): Material Point Mechanics.
  - 2004 - 2005 Lab classes (*Master 2*): Nuclear Instrumentation.
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## SUPERVISION

### Postdoctoral fellows

- 2025 Sorbonne U.: supervision of Y. Sanchez Villamizar.
- 2023 - 2024 Sorbonne U.: supervision of T. Murphy.
- 2016 - 2019 Sorbonne U.: collaboration with A. Goudelis.
- 2017 Sorbonne U.: supervision of H.S. Shao.
- 2013 - 2015 Strasbourg U.: co-supervision of L. Basso.

### Ph.D. in Theoretical Particle Physics

- 2024 - 2027 Co-supervision of M. Guicheneuy (Sorbonne U., France).
- 2022 - 2025 Co-supervision of D. Agin (Sorbonne U., France).
- 2020 - 2023 Co-supervision of Y. Simon (Sorbonne U., France).
- 2018 - 2021 Co-supervision of M. Utsch (Sorbonne U., France).
- 2015 - 2020 Co-supervision of J. Araz (Concordia U., Canada).
- 2015 - 2016 Supervision of the visiting PhD student J. Guo (CAS-CNRS exchange program).
- 2011 - 2015 Co-supervision of K. de Causmaecker (VUB, Belgium).
- 2012 - 2015 Co-supervision of J. Proudom (U. Grenoble, France).
- 2010 - 2013 Co-supervision of A. Alloul (U. Strasbourg, France).
- 2008 - 2011 Participation to the supervision of J. Debove (U. Grenoble, France).

### Master in physics

- 2023-2024 Master 2 ICFP: co-supervision of M. Guicheneuy.
- 2023-2024 Master 1 CMI Sorbonne: supervision of M. Panet.
- 2022-2023 Master 2 ICFP: co-supervision of S. Douaud.
- 2021-2022 Master 2 ICFP: co-supervision of D. Agin and C. Meridja.
- 2020-2021 Master 2 ETH/Polytechnique: supervision of L. Schell.
- 2019-2020 Master 2, ICFP: supervision of Y. Simon.
- 2019-2020 Master 1, Orsay: supervision of E. Robert.
- 2018-2019 Master 2, ICFP: supervision of G. Polykratis.
- 2018-2019 Master 2, NPAC: supervision of Z. He.
- 2018-2019 Master 1, Orsay: supervision of Y. Shimizu.
- 2017-2018 Master 2, Siegen: supervision of M. Utsch.
- 2017-2018 Master 1, Orsay: supervision of M. Médevielle.
- 2016-2017 Master 2, NPAC: supervision of M. Zumbühl.
- 2015-2016 Master 2, Strasbourg: cosupervision of A. Molter.
- 2014-2015 Master 2, Münster: cosupervision of D. Schwartländer.
- 2014-2015 Master 1, Strasbourg: supervision of A. Molter and R. Vivant.
- 2013-2014 Master 2, Grenada/Münster: cosupervision of A. Marin.
- 2012-2013 Master 2, Strasbourg: cosupervision of D. Tant.
- 2011-2012 Master 2, Strasbourg: supervision of J. Proudom.
- 2011-2012 Master 1, Strasbourg: supervision of J. Harter; cosupervision of A. Gallo and S. Marrazzo.
- 2010-2011 Master 1, Strasbourg: cosupervision of J. Proudom and G. Schoering.
- 2009-2010 Master 2, Strasbourg: supervision of G. Serret; cosupervision of A. Alloul, J. Guigue and M. Kraft.
- 2009-2010 M1, Strasbourg: supervision of I. Friedli, C. Goetzmann and H. Sliwiska.
- 2008-2009 M1, Strasbourg: supervision of G. Serret.

### Bachelor in Physics

- 2024 - 2025 Sorbonne: supervision of S. Intingaro, B. Lichtfeld, J. Québriac, M. Roma, A. Romanzin, T. Waluda-Duquesne.
  - 2023 - 2024 Sorbonne: supervision of J. Castel, L. Munoz and L. Sivy.
  - 2022 - 2023 Sorbonne: supervision of F. Benoit, L. Munoz and G. Tortarolo.
  - 2021 - 2022 Sorbonne: supervision of A. Re and L. Restrepo.
  - 2020 - 2021 Sorbonne: supervision of V. Rehn.
  - 2017 - 2018 Sorbonne: supervision of V. Grison, D. Soares and W. Van Parys.
  - 2014 - 2015 Strasbourg: supervision of A. Frauensohn and J. Gasser.
  - 2010 - 2011 Strasbourg: supervision of Y. Dirian and J. Hurst.
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