

## **ALLEGATO B**

**UNIVERSITÀ DEGLI STUDI DI MILANO**

**selezione pubblica per n.1 posto/i di Ricercatore a tempo determinato ai sensi dell'art.24, comma 3, lettera b) della Legge 240/2010 per il settore concorsuale 02/A2 - FISICA TEORICA DELLE INTERAZIONI FONDAMENTALI ,**

**settore scientifico-disciplinare FIS/02 - FISICA TEORICA, MODELLI E METODI MATEMATICI**

**presso il Dipartimento di Fisica Aldo Pontremoli,**

**(avviso bando pubblicato sulla G.U. n. 17 del 02/03/2021) Codice concorso 4541**

**Michele Lucente**

## **CURRICULUM VITAE**

**INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)**

<b>COGNOME</b>	<b>LUCENTE</b>
<b>NOME</b>	<b>MICHELE</b>
<b>DATA DI NASCITA</b>	<b>02/11/1985</b>

**INSERIRE IL PROPRIO CURRICULUM  
(non eccedente le 30 pagine)**

# MICHELE LUCENTE

Bibliographic indicators (as of 16/03/2021)			
	Scopus	INSPIRE Citeable	INSPIRE Published
Documents	21	22	13
Citations	327	506	498
h-index	9	12	12
Citations/paper	15.6	23.0	38.3

Humboldt Research Fellow  
RWTH Aachen University - Germany

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Lecturer  
Université Catholique de Louvain - Belgium

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I am a researcher in **particle and astro-particle physics**, mainly active on the observational problems calling for new physics **beyond the Standard Model**: **neutrino masses and leptonic flavour** mixing [1,3,5,8,10], the origin of the **baryon asymmetry of the Universe** [4,7,13] and the nature of **dark matter** [2,6]. I am also interested in proposing new or unconventional paths that can open **new research directions** [9,11,12].

I have a proven experience in **scouting and securing external funding**, and in **drafting proposals** for funding agencies: since 2017 my research is being supported by individual research grants. Moreover, from 2020 I am also **expert evaluator** for the European Commission's **Research Executive Agency** (REA) - programme MSCA-IF.

I have established **teaching experience at the university level**, both as a full lecturer (year 2020/2021) and as tutor (2016/2017).

**Current functions**      **Researcher**, Institute for Theoretical Particle Physics and Cosmology (TTK), Germany  
*Humboldt Research Fellowship*  
1<sup>st</sup> October 2020 — *ongoing*

**Lecturer**, Université catholique de Louvain (UCLouvain), Belgium  
15<sup>th</sup> September 2020 — *ongoing*

**Awarded research grants**      **Humboldt Research Fellowship for Postdoctoral Researchers** (Call 2019)  
*Duration: 24 months*  
*Grant amount: 83 280 €*

**Marie Skłodowska-Curie Individual Fellowship** (Call H2020-MSCA-IF-2016)  
**MadBaM**: automated tools for precision calculations of the Baryon Asymmetry of the Universe in BSM models (*Proposal number 750627*)  
*Duration: 24 months*  
*Grant amount: 172 800 €*

**University teaching experience**      2020/2021 — **Quantum Field Theory 1** (LPHYS2132), 26 hours of teaching + 4 hours of tutorials, *Université Catholique de Louvain (UCLouvain)*

2016/2017 — **Tutorials** for the **Quantum Physics** (LPHY1222) and **Relativistic Quantum Mechanics** (LPHY2125) courses at the *Université Catholique de Louvain* (lectures held by Prof. Fabio Maltoni)

**Research interests**      **Neutrino** physics (model building, phenomenology) — Cosmology (**baryogenesis**, **dark matter**), **astroparticle** physics — **Beyond the Standard Model** of particle physics — **Flavour** physics (flavour dynamics in leptonic and hadronic sectors) — **Collider** physics — **Automation** algorithms and **coding** — **Machine Learning**

<b>Previous research experiences</b>	<b>Researcher</b> , Centre for Cosmology, Particle Physics and Phenomenology - CP3 (Belgium) Postdoctoral researcher / Marie Skłodowska-Curie Fellow 1 <sup>st</sup> January 2016 — 30 <sup>th</sup> September 2019
	<b>Research fellow</b> , Scuola Internazionale Superiore di Studi Avanzati - SISSA (Italy) within the ERC Advanced Grant <i>DaMeSyFla</i> 1 <sup>st</sup> October 2015 — 31 <sup>st</sup> December 2015
	<b>Visiting PhD student</b> , Harvard University Department of Physics (USA) 28 <sup>th</sup> February 2015 — 2 <sup>nd</sup> May 2015 <i>Hosts</i> : H. M. Georgi and L. Randall
	<b>Visiting PhD student</b> , Instituto de Física Teórica - IFT / UAM-CSIC (Spain) 1 <sup>st</sup> October 2013 — 31 <sup>st</sup> December 2013 <i>Hosts</i> : E. Fernandez Martinez and M. B. Gavela Legazpi
	<b>PhD student</b> , Laboratoire de Physique Théorique d'Orsay - LPT (France) within the Marie Curie Initial Training Network <i>Invisibles</i> 1 <sup>st</sup> October 2012 — 30 <sup>th</sup> September 2015 <i>Supervisor</i> : Asmâa Abada
	<b>PhD student</b> , Scuola Internazionale Superiore di Studi Avanzati - SISSA (Italy) enrolled in the <i>Astroparticle Physics</i> program 1 <sup>st</sup> October 2011 — 30 <sup>th</sup> September 2015 <i>Supervisor</i> : Guido Martinelli
	<b>Postgraduate researcher</b> , Scuola Internazionale Superiore di Studi Avanzati (Italy) 1 <sup>st</sup> June 2011 — 31 <sup>st</sup> August 2011 <i>Supervisor</i> : Guido Martinelli
	<b>Visiting MSc student</b> , Laboratoire de Physique Théorique d'Orsay - LPT (France) 15 <sup>th</sup> September 2010 — 31 <sup>st</sup> March 2011 <i>Host</i> : Asmâa Abada

<b>Education</b>	25 <sup>th</sup> September 2015 — Joint <b>Ph.D. in Physics</b> awarded by the <b>Université Paris-Sud</b> and the <b>Scuola Internazionale Superiore di Studi Avanzati</b> <i>Thesis</i> : Implication of sterile fermions in particle physics and cosmology <i>Supervisors</i> : A. Abada and G. Martinelli
	28 <sup>th</sup> April 2011 — <b>Master of Science in theoretical Physics</b> <b>Università degli Studi di Roma "La Sapienza"</b> <i>Thesis</i> : Inverse Seesaw Minimal Extension <i>Supervisors</i> : A. Abada and G. Martinelli
	19 <sup>th</sup> July 2007 — <b>Bachelor in general Physics</b> <b>Università degli Studi della Calabria</b> <i>Thesis</i> : Supersymmetry in Quantum Mechanics <i>Supervisor</i> : Alessandro Papa

<b>Awards and Selections</b> (continued on next page)	2019 — Admitted to the <b>oral examination</b> of the <b>INFN opening</b> for 10 Researcher positions, based on qualifications and written examinations (III professional level, call n. 20755/2019)
	2016 — Obtained the score <b>99.16/100</b> in the evaluation of the proposal submitted for the <b>EU Cofund</b> 2015 project 713366 - <b>InterTalentum</b>

**Awards and  
Selections**  
(cont.)

- 2015 — Admitted to the **6<sup>th</sup> Research Opportunities Week** at the Technical University of Munich
- 2012 — Selected as a **Junior Early Stage Researcher** within the Marie Curie Initial Training Network *Invisibles*
- 2011 — Admitted into the **Astroparticle Physics Ph.D. course** at SISSA
- 2011 — **Research training fellowship** for post-graduate students at SISSA (3 months)
- 2009 — **Grant** from the *Ateneo Federato della Scienza e della Tecnologia* (AST), to perform the **MSc thesis research work outside Italy** (Decreto n.32/09)
- 2008 — **Prize** from the *Istituto Nazionale di Fisica Nucleare* (INFN), for **deserving new bachelor-graduates** (Bando 12391/2007)
- 2004 — **Admitted into the college** of the *Fondazione Calabria Scienza Oggi* (Bando per l'A.A. 2004/2005)

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**Seminars**

- Institute for Astroparticle Physics** Journal Club at **KIT** (Germany) - *15 March 2021*  
Freeze-In Dark Matter within the Seesaw mechanism
- Dark Matter Forum at **RWTH Aachen University** (Germany) - *24 June 2019*  
Long-lived particle searches with heavy ion collisions at the LHC
- Vrije Universiteit Brussel - VUB** (Belgium), *29 November 2018*  
New physics searches with heavy ion collisions at the LHC
- T30d-Technical University of Munich** (Germany), *23 October 2015*  
Dark matter and neutrino masses in the Inverse Seesaw mechanism
- CP3-Université catholique de Louvain** (Belgium), *6 October 2015*  
Dark matter and neutrino masses in the Inverse Seesaw mechanism
- LPT-Université Paris-Sud** (France), *15 May 2014*  
Neutrino masses and dark matter in Inverse Seesaw realisations
- Scuola Internazionale Superiore di Studi Avanzati** (Italy), *28 May 2013*  
What is the minimal Inverse Seesaw realisation?

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**Invited  
plenary  
talks**  
(continued on  
next page)

- LLP8: Searching for long-lived particles at the LHC and beyond**  
*16-20 November 2020, online event*  
MeV-scale Seesaw and Leptogenesis
- Blois 2019: 31<sup>st</sup> Rencontres de Blois on “Particle Physics and Cosmology”**  
*2-7 June 2019, Château de Blois (France)*  
Lepton number violation: a global picture
- IFAE 2019 - Incontri di Fisica delle Alte Energie**, *8-10 April 2019 in Naples (Italy)*  
Leptogenesis a bassa scala e prospettive sperimentali
- Rencontres de Moriond 2019: electroweak interactions and unified theories**  
*16-23 March 2019, La Thuile (Italy)*  
Testability of leptogenesis with 3 RH-neutrinos below the ew scale

**Invited  
plenary  
talks**  
(cont.)

**Be.HEP Summer Solstice 2018** — 21<sup>st</sup> June 2018, Ghent University (Belgium)  
Leptogenesis, dark matter and neutrino masses

**NuPhys2017: Prospects in Neutrino Physics**  
20-22 December 2017, Barbican Centre - London (UK)  
Leptogenesis, dark matter and neutrino masses

**Eighth COSPA meeting: (Self-) Interacting Dark Matter**  
10 November 2017, Université libre de Bruxelles - ULB (Belgium)  
Lepton number symmetry in connection with neutrino masses, dark matter, and leptogenesis

**51<sup>st</sup> Rencontres de Moriond: electroweak interactions and unified theories**  
12-19 March 2016, La Thuile (Italy)  
Lepton number symmetry as a way to testable leptogenesis

**Invisibles15 Workshop: “Invisibles Meets Visibles”**  
22-26 June 2015, IFT and Thyssen-Bornemisza Museum (Spain)  
Leptogenesis in natural low-scale seesaw mechanisms

**Invisibles14 Workshop** — 14-18 July 2014, Institut des Cordeliers - Paris (France)  
Dark matter in the minimal inverse seesaw mechanism

**Groupeement de Recherche Neutrino 2014** — 16-17 June 2014, LAL Orsay (France)  
Sterile neutrinos and implications for dark matter

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**Invited  
parallel  
talks**

**SUSY2019** — 20-24 May 2019, Omni Hotel in Corpus Christi (USA)  
Low scale seesaw models and leptogenesis

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**Contributed  
talks**  
(continued on  
next page)

**Rencontre de Physique des Particules 2019**  
23–25 January 2019, Laboratoire de Physique de Clermont - LPC (France)  
Search for long-lived particles with heavy ion collisions at the LHC

**DESY Theory Workshop**, 25-28 September 2018 in DESY Hamburg (Germany)  
Low-scale leptogenesis with 3 right-handed neutrinos

**TeVPA 2018: 2018 TeV Particle Astrophysics conference**  
27–31 August 2018, Langenbeck-Virchow-Haus - Berlin (Germany)  
Low-scale leptogenesis with 3 right-handed neutrinos

**ICHEP 2018: XXXIX International Conference on High Energy Physics**  
4–11 July 2018, Coex Convention & Exhibition Center - Seoul (South Korea)  
Low-scale leptogenesis with 3 right-handed neutrinos

**CosPA 2017: International Symposium on Cosmology and Particle Astrophysics**  
11-15 December 2017, Yukawa Institute for Theoretical Physics - Kyoto (Japan)  
Lepton number symmetry at the origin of neutrino masses, leptogenesis and dark matter?

**GDR Terascale** — 23-25 November 2015, LPSC Grenoble (France)  
Testing leptogenesis in low-scale seesaw mechanisms

**EPS-HEP 2015** — 22-29 July 2015, University of Vienna (Austria)  
Leptogenesis in natural low-scale seesaw mechanisms

**Contributed talks**  
(cont.)

**Invisibles Meeting** — 6<sup>th</sup> February 2015, Instituto de Física Teórica - Madrid (Spain)  
Lepton flavour violation in decays of vector quarkonia

**Planck 2014** — 26-30 May 2014, Institut des Cordeliers Paris (France)  
Sterile neutrino dark matter in Inverse Seesaw realisations

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**Posters**

**Neutrino 2018: XXVIII International Conference on Neutrino Physics and Astrophysics**  
4-9 June 2018, Kongresshaus - Heidelberg (Germany)  
*Low-scale leptogenesis with 3 right-handed neutrinos*

**EPS-HEP 2017**  
5-12 July 2017, Palazzo del Cinema and Palazzo del Casinò - Venice (Italy)  
Solar  $\gamma$ -rays as a Complementary Probe of Dark Matter

**Invisibles15 Workshop: “Invisibles Meets Visibles”**  
22-26 June 2015, IFT and Thyssen-Bornemisza Museum (Spain)  
Leptogenesis in natural low-scale seesaw mechanisms

**Invisibles15 School**  
15-20 June 2015, La Cristalera - Miraflores de la Sierra (Spain)  
Leptogenesis in natural low-scale seesaw mechanisms

**22ème Colloque “Jeunes Chercheurs” Alain Bouyssy**  
13<sup>th</sup> February 2014, Faculté des Sciences d’Orsay (France)  
Pourquoi les Neutrinos sont-ils si peu massifs? Réalisation minimale d’un mécanisme de masse

**Invisibles13 Workshop**  
15-19 July 2013, Lumley Castle Hotel - Chester le Street (UK)  
What is the minimal Inverse Seesaw realisation?

**Invisibles13 School** — 10-15 July 2013, IPPP Durham (UK)  
What is the minimal Inverse Seesaw realisation?

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**Outreach**

*Dans la peau d’un physicien des particules* (MasterClass), **hands-on workshop for high school students** at **CP3/UCL** (Belgium), 28-29 March 2019; 20<sup>th</sup> March 2018

Contribution to *Scientists meet Art*, **art booklet** prepared for the Invisibles15 Workshop 22-26 June 2015 at the **Thyssen-Bornemisza Museum** in Madrid (Spain)

*The pathway to neutrinos (an incomplete tale)*, **public talk in high school** given at the **École Bilingue Internationale Clermont Ferrand** (France), 11<sup>th</sup> June 2014

*Journées Portes Ouvertes à la Faculté des Sciences d’Orsay*, **orientation day for high-school students** at the **Faculty of Science of the Université Paris-Sud**  
7<sup>th</sup> February 2014

2012/2015 — Regular contributions to the **outreach section** of **www.invisibles.eu**

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**Auxiliary formation**  
(continued on next page)

**Speaking in public** (*Prendre la parole en public*), 9<sup>th</sup> and 16<sup>th</sup> November 2018 at UCLouvain  
*Trainer:* Jean-Philippe Lombardi (RTL Belgium)

**Writing Successful ERC Grant Proposals**, 23<sup>rd</sup> April 2018 at UCLouvain  
*Trainer:* Dr. Mette Skraastad (Yellow Research)

**Auxiliary  
formation**  
(cont.)

**Project management** (*Gestion de projets*) 17<sup>th</sup> and 24<sup>th</sup> April 2018 at UCLouvain  
*Trainer:* Fabrice Simon (Centre pour la formation et l'intervention psychosociologique)

**Physics, Statistics and Machine Learning**, 27<sup>th</sup> November-1<sup>st</sup> December 2017 at UCLouvain  
*Trainer:* Kyle Cranmer (New York University)

**Essentials of management for scientists**, 6<sup>th</sup>-10<sup>th</sup> March 2017 at UCLouvain  
*Trainer:* Michel Herquet (B12 consulting)

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**Research  
support  
activities**

2020-ongoing — **Expert evaluator** for the European Commission's **Research Executive Agency** (REA), programme **MSCA-IF**

2019-ongoing — **Referee** for **JHEP, JCAP**

2019 — In charge of the **IRMP spring Colloquium**, at the Research Institute in Mathematics and Physics, UCLouvain  
*Looking at the Earth interior with neutrinos*, by Jordi Salvado on 25<sup>th</sup> April 2019

2016-2019 — In charge of the **series of theoretical and phenomenological seminars** at **CP3-UCL** (selecting the topics, inviting the speakers and following the logistics)

2017 — **Co-chairman** in the **NuPhys2017** conference

2016/2017 — **Member** of the **organising committee** and **co-chairman** of the **Dark Matter workshop@CP3**, 6-8 December 2017 - Institut des Sciences de la Vie, Louvain-la-Neuve (Belgium)

2013/2014 — **Member** of the **organising committee** of the **Invisibles14 Workshop** and of the **Invisibles14 School**

2012/2015 — In charge of the **broadcasting** of the **Invisibles Journal Club** (series of on-line seminars) at LPT Orsay

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**Industrial  
training**

**Data Scientist** trainee, B12 Consulting (Belgium)  
June 15<sup>th</sup> 2020 — July 26<sup>th</sup> 2020

**Internship**, Hamamatsu Photonics (Japan)  
17<sup>th</sup> February 2014 — 14<sup>th</sup> March 2014  
*Host:* Yuji Yoshizawa

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**Certificates**

**Data Scientist** qualifying training, *Technofutur TIC - E6K Tech Education Center*  
January 13<sup>th</sup> 2020 — May 15<sup>th</sup> 2020

**Junior Data Analyst** University Certificate, *Université catholique de Louvain*  
October 1<sup>st</sup> 2019 — January 10<sup>th</sup> 2020

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**Computer  
Skills**

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next page)

**Programming:** Python, Julia, R

**Scientific software:** Mathematica, FeynRules, MadGraph, MadDM, FeynCalc, FeynArts

**OS:** Mac OS, Linux, Windows



<i>Computer Skills</i> (cont.)	<b>Hardware:</b> basic servicing
<b>Short stays</b>	<b>Roma Tre University - Department of Mathematics and Physics</b> from 17 <sup>th</sup> to 21 <sup>st</sup> December 2018 <i>Hosts:</i> Roberto Franceschini and Francesco Sanfilippo
<b>Languages</b>	<b>Italian</b> (native) <b>English</b> (good level) <b>French</b> (good level) <b>Spanish</b> (beginner)
<b>Other attended conferences and schools</b>	<p><b>Heavy Ions and Hidden Sectors</b>, 4-5 December 2018, UCLouvain (Belgium)</p> <p><b>be.h EOS Welcome event</b>, 18<sup>th</sup> October 2018, VUB (Belgium)</p> <p><b>Invisibles18 Workshop</b>, 3-7 September 2018, Karlsruhe Institute of Technology (Germany)</p> <p><b>CrossTalk Workshop: Flavour anomalies</b> — 29<sup>th</sup> March 2018, VUB (Belgium)</p> <p><b>53<sup>rd</sup> Rencontres de Moriond: electroweak interactions and unified theories</b> 10-17 Mars 2018, La Thuile (Italy)</p> <p><b>Einstein telescope conference</b> — 31<sup>st</sup> January 2018, University of Liège (Belgium)</p> <p><b>Dark Matter workshop @ CP3</b> — 6-8 December 2017, UCLouvain (Belgium)</p> <p><b>Invisibles17 Workshop</b> — 12-16 June 2017, University of Zurich (Switzerland)</p> <p><b>Invisibles16 Workshop</b> — 12-16 September 2016, Orto Botanico - Padova (Italy)</p> <p><b>6th CosPa Vernal Equinox meeting</b> 21<sup>st</sup> March 2016, Cyclotron-Université catholique de Louvain (Belgium)</p> <p><b>Axion theory and searches</b> — 10-12 June 2015, IPhT CEA/Saclay (France)</p> <p><b>Rencontre de Physique des Particules 2015</b> 15-16 January 2015, Institut Henri Poincaré - Paris (France)</p> <p><b>Invisibles14 School</b> — 8-13 July 2014, Château de Button - Gif-Sur-Yvette (France)</p> <p><b>The physics of Neutrinos</b>, lectures held by <i>Renata Zukanovich-Funchal</i> January 11-18-25 and February 1<sup>st</sup> 2013 at IPhT, Saclay (France)</p> <p><b>BeNe 2012</b> — 17-21 September 2012, ICTP Trieste (Italy)</p> <p><b>Groupeement de Recherche Neutrino 2010</b>, 11th October 2010, IPN Orsay (France)</p> <p><b>XXIV International Conference of Physics Students</b> 10-18 August 2009, Split (Croatia)</p> <p><b>XX International Conference of Physics Students</b> 15-21 August 2005, Coimbra (Portugal)</p>



## REFERENCES

### **Marco Drewes**

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# LIST OF PUBLICATIONS

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## PRE-PRINTS

1. M. Lucente, *Freeze-In Dark Matter within the Seesaw mechanism*, **arXiv:2103.03253 [hep-ph]**

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## PUBLISHED

13. V. Domcke, M. Drewes, M. Hufnagel and M. Lucente, *MeV-scale Seesaw and Leptogenesis*, **JHEP 01 (2021), 200** [arXiv:2009.11678 [hep-ph]]
12. M. Drewes, A. Giammanco, J. Hajer and M. Lucente, *New long-lived particle searches in heavy-ion collisions at the LHC*, **Phys. Rev. D 101 (2020) no.5, 055002** [arXiv:1905.09828 [hep-ph]]
11. R. Bruce *et al.*, *New physics searches with heavy-ion collisions at the CERN Large Hadron Collider*, **J. Phys. G 47 (2020) no.6, 060501** [arXiv:1812.07688 [hep-ph]]
10. A. Abada, G. Arcadi, V. Domcke, M. Drewes, J. Klaric and M. Lucente, *Low-scale leptogenesis with three heavy neutrinos*, **JHEP 1901 (2019) 164** [arXiv:1810.12463 [hep-ph]]
9. M. Drewes, A. Giammanco, J. Hajer, M. Lucente and O. Mattelaer, *Searching for New Long Lived Particles in Heavy Ion Collisions at the LHC*, **Phys. Rev. Lett. 124 (2020) no.8, 081801** [arXiv:1810.09400 [hep-ph]]
8. A. Abada, V. De Romeri, M. Lucente, A. M. Teixeira and T. Toma, *Effective Majorana mass matrix from tau and pseudoscalar meson lepton number violating decays*, **JHEP 1802 (2018) 169** [arXiv:1712.03984 [hep-ph]]
7. A. Abada, G. Arcadi, V. Domcke and M. Lucente, *Neutrino masses, leptogenesis and dark matter from small lepton number violation?*, **JCAP 1712 (2017) no.12, 024** [arXiv:1709.00415 [hep-ph]]
6. C. Arina, M. Backović, J. Heisig and M. Lucente, *Solar  $\gamma$  rays as a complementary probe of dark matter*, **Phys. Rev. D 96 (2017) no.6, 063010** [arXiv:1703.08087 [astro-ph.HE]]
5. E. Fernandez-Martinez, J. Hernandez-Garcia, J. Lopez-Pavon and M. Lucente, *Loop level constraints on Seesaw neutrino mixing*, **JHEP 1510 (2015) 130** [arXiv:1508.03051 [hep-ph]]
4. A. Abada, G. Arcadi, V. Domcke and M. Lucente, *Lepton number violation as a key to low-scale leptogenesis*, **JCAP 1511 (2015) no.11, 041** [arXiv:1507.06215 [hep-ph]]
3. A. Abada, D. Bečirević, M. Lucente and O. Sumensari, *Lepton flavor violating decays of vector quarkonia and of the Z boson*, **Phys. Rev. D 91 (2015) no.11, 113013** [arXiv:1503.04159 [hep-ph]]
2. A. Abada, G. Arcadi and M. Lucente, *Dark Matter in the minimal Inverse Seesaw mechanism*, **JCAP 1410 (2014) 001** [arXiv:1406.6556 [hep-ph]]
1. A. Abada and M. Lucente, *Looking for the minimal inverse seesaw realisation*, **Nucl. Phys. B 885 (2014) 651** [arXiv:1401.1507 [hep-ph]]

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## PROCEEDINGS

8. M. Lucente, *Testability of leptogenesis with three RH-neutrinos below the electroweak scale*, **Proceedings of the Rencontres de Moriond EW 2019** [arXiv:1906.11869 [hep-ph]]
7. G. Arcadi, A. Abada and M. Lucente, *Leptogenesis from tiny violation of Lepton Number*, **PoS NOW 2018 (2018) 090**
6. M. Lucente, A. Abada, G. Arcadi, V. Domcke, M. Drewes and J. Klaric, *Freeze-in leptogenesis with 3 right-handed neutrinos*, **PoS ICHEP 2018 (2018) 306** [arXiv:1811.08292 [hep-ph]]
5. M. Lucente, A. Abada, G. Arcadi and V. Domcke, *Leptogenesis, dark matter and neutrino masses*, **NuPhys2017 Conference Proceedings** [arXiv:1803.10826 [hep-ph]]

4. V. Domcke, A. Abada, G. Arcadi and M. Lucente, *Neutrino masses and leptogenesis from small lepton number violation*, **Proceedings of the Rencontres de Moriond EW 2018**
3. M. Lucente, C. Arina, M. Backović and J. Heisig, *Probing Dark Matter Long-lived Mediators with Solar  $\gamma$  rays*, **PoS EPS-HEP2017 (2017) 628** [arXiv:1710.03947 [hep-ph]]
2. M. Lucente, A. Abada, G. Arcadi and V. Domcke, *Lepton number symmetry as a way to testable leptogenesis*, **Proceedings of the Rencontres de Moriond EW 2016** [arXiv:1605.05328 [hep-ph]]
1. M. Lucente, *Leptogenesis in natural low-scale seesaw mechanisms*, **PoS EPS-HEP2015 (2015) 393** [arXiv:1510.04611 [hep-ph]]

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## PH.D. THESIS

*Implication of Sterile Fermions in Particle Physics and Cosmology* [arXiv:1609.07081 [hep-ph]]  
<http://www.theses.fr/en/2015PA112210> — <https://iris.sissa.it/handle/20.500.11767/4803>

Data

16/03/2021

Luogo

Louvain-la-Neuve