

LamaTARSISSI

Contact

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Languages

Arabe (maternal)
Français (bilingue)
English (bilingual)
Italiano (principiante)

Programming

Matlab, Scilab,
Mathematica, Python,
Sage, Java, HTML,
CSS, C++, VTK,
Git

Nationality

French

Supervision

TFJM22020
Member of jury at
"Tournoi français des
jeunes
mathématiciens et
mathématiciennes"
Paris-Est.
Giovanni PULTA (2018)
Master student at
universita di siena
Dipartimento di
Ingegneria
dell'Informazione e
Scienze Matematiche

Reviewer

TCS-Words 2017
TCS

Formation

| | | |
|------|---|--------------------------------|
| 2017 | PHD in Mathematics and Computer Science Jury: Advisor : Laurent VUILLON Reviewer : Michel RIGO Reviewer : Jean-Marc FÉDOU Examinator : Jean-Pierre BOREL (President) Examinator : Simone RINALDI Examinator : Julien CASSAIGNE | University Savoie Mont Blanc |
| 2012 | Master in Fundamental Mathematics (ranked: First) | University Saint Esprit Kaslik |
| 2008 | Bachelor+M1 in Pure Mathematics (ranked: First) | Lebanese University |

Professional Experience (Research)

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| 2020–present | Sorbonne University Abu Dhabi <i>Invited Professor</i> Mathematics and computer science at the Physics department | Abu Dhabi, United Arab Emirates |
| 2018–2020 | ESIEE, LIGM, LAMA <i>Post-doc</i> Combinatorics on words, digital convexity, discrete geometry | Champs sur Marne, France |
| 2017–2018 | Laboratoire I3S, Sophia Antipolis <i>Researcher+ ATER in computer sciences</i> Combinatorics on words, algorithms, digital convexity. | Nice, France |
| 2014–2017 | LAMA, Université Savoie Mont Blanc <i>Researcher</i> Combinatorics on words, tomography, discrete geometry, theory number. | Technolac, France |

Professional Experience (Teaching)

University level

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| 2020 | Lecturer in Mathematics 56h Linear Algebra, and Group Theory | University Gustave Eiffel |
| 2020 | Lecturer in Computer sciences 20h Visualisation in 3D | ESIEE Paris |
| 2019 | Lecturer in Mathematics 36h Linear Algebra | ESIEE Paris |
| 2019 | Lecturer in Computer sciences 50h Java introduction and Python | ESIEE Paris |
| 2018 | Lecturer in Computer Sciences 144h Java introduction, Python, Algorithms and Startegies of games | École polytechnique, Université de Nice |
| 2018 | Lecturer in Mathematics 40h Vectorial analysis | École polytechnique, Université de Nice |
| 2015–2017 | Lecturer in Mathematics 128h Euclidean space, Statistics, Probability, Differential equations, Analysis | University Savoie Mont Blanc |

High school level

- 2010–2014 **Mathematics teacher** High school level
Workshops: Pedagogical, student follow-up,
How to make QCM and prepare exams. Frères Lassalliens-Lebanon
- 2010–2011 **Mathematics teacher and coordinator** High school and (Bac+2) level Norton technical
Institute-Lebanon
- 2008–2010 **Mathematics teacher** High school level
Workshops: Pedagogical, How to make QCM. AL-MAWAKEB school-Dubai
- 2007–2008 **Mathematics teacher** High school level Norton technical Institute-Lebanon

Professional Training

- 2012–2014 **IET (Interactive Educational Technology), CNRS** Beirut-Lebanon
Trainer software for the ActivInspire
(.) CNRS
(.) Universities
(.) Schools
(.) Companies

Tutoring

- 2005–2020 **Mathematics tutor** independently for high school and university levels
- 2016 **Mathematics Tutor** High school and university levels Acadomia

Awards/competitive scholarships

- 2019 **Best Early Stage Researcher Presentation Award**
Istanbul-Turkey
- 2019 **Scholarship for research cooperation during a week stay**
University of Liège-Belgium
- 2019 **Scholarship to attend Women in Sage school**
Archanes-Greece
- 2018-2020 **Scholarship for postdoctoral research-Labex Bézout**
University Paris Est Marne La Vallée-France
- 2018 **Scholarship for research cooperation during a month stay**
University of Florence-Italy
- 2018 **Qualification in pure mathematics.**
CNU–25, nu°18225311494
- 2017 **Label RES, Recherche et Enseignement Supérieur.**
University of Grenobles Alpes-France
- 2017 **Scholarship to attend mathematical semester**
CRM-University of Montréal
- 2017 **Scholarship for research cooperation during two weeks stay**
University of Montréal-Canada
- 2017 **Scholarship to attend Women in Sage school**
Ris Orangis-Paris
- 2016 **Scholarship to attend Algorithmic and Enumerative Combinatorics summer school**
Hagenberg-Austria

Interest

paraprofessional:

History
Cultural visits
Humanity activities

personal:

Latino dance
Tennis
Basket ball

Networks

active:

1) Member of the COMEDIC project (Convergent Metrics for Digital Calculus) ANR15- CE40-0006.

2) Ambassador of CWM (committee for woman in Mathematics).

previous:

1) Member at the conseil de l'école doctorale EDMSTII, Joseph Fourier, Grenoble-France.

2) Representative of the PHD students at the laboratory LAMA, University Savoie Mont Blanc, Technolac-France.

2015 **Ministerial scholarship for a PHD in Algebraic combinatorics**
University of Savoie Mont Blanc-France

2010-2012 **Scholarship obtained for being classified as first ranked at the university**
Faculty of sciences- University of Kaslik-Lebanon

Publications

Journals

Dulio, P., Frosini, A., Rinaldi, S., **Tarsissi, L.**, Vuillon, L. 2021. "Further steps on the reconstruction of convex polyominoes from orthogonal projections". Journal of Combinatorial Optimization, Springer Verlag - 2021. <https://doi.org/10.1007/s10878-021-00751-z>.

(authors are in alphabetic order)

Frosini, A., Kocay, W., Palma, G., **Tarsissi, L.** 2020. "On Null 3-Hypergraphs". Discrete Applied Mathematics - 2020. <https://doi.org/10.1016/j.dam.2020.10.020>.

(authors are in alphabetic order)

International Conferences

Frosini, A., **Tarsissi, L.** - 2020. The characterization of the minimal paths in the Christoffel tree according to a second-order balancedness. Development in Language Theory (DLT) - Tampa, USA. (hal-02495529) (LNCS, volume 12086) - https://doi.org/10.1007/978-3-030-48516-0_24 (authors are in alphabetic order)

Tarsissi, L., Coeujolly, D., Kenmochi, Y., Romon, P. - 2019. Convexity Preserving Contraction of Digital Sets. Asian Conference on Pattern Recognition (ACPR) - Auckland, New-Zealand. (hal-02315084) (LNCS, volume 12047) https://doi.org/10.1007/978-3-030-41299-9_48

Tarsissi, L., Vuillon, L. 2019. Second order balance property on Christoffel words. Mathematical Aspects of Computer and Information Sciences (MACIS) - Istanbul-Turkey. (hal-02433984) (LNCS, volume 11989) https://doi.org/10.1007/978-3-030-43120-4_23 (authors are in alphabetic order)

Dulio, P., Frosini, A., Rinaldi, S., **Tarsissi, L.**, Vuillon, L. 2017. First Steps in the Algorithmic Reconstruction of Digital Convex Sets. WORDS - Montréal-Canada. (LNCS volume 10432) https://doi.org/10.1007/978-3-319-66396-8_16

(authors are in alphabetic order)

National Conferences

Borel, J-P, **Tarsissi, L.**, Vuillon, L. 2018. Inflation of Digital Convex Polyominoes. Journées montoises d'informatique théorique - Bordeaux-France. (hal-02042696) https://jm2018.sciencesconf.org/data/pages/jm2018_abstracts.pdf#page=41

(authors are in alphabetic order)

Schools

2019 **Women in Sage.**
Archanes-Greece

2017 **Thematic semester in Algebra and Combinatorics on words**
Montréal-Canada

2017 **Women in Sage.**
Ris-Orangis-France

2016 **3rd Algorithmic and Enumerative Combinatorics Summer School**
Hagenberg-Austria

2016 **Transversal aspect of Tilings.**
Île d'Oléron-France

- 2016 **École des jeunes chercheurs en informatique et mathématiques (EJCIM)**
Strasbourg-France
- 2015 **École des jeunes chercheurs en informatique et mathématiques (EJCIM)**
Orléans-France

Presentations

Conferences:

- 2021 **The 25th International Conference on Developments in Language Theory (DLT 2021)** Porto-
Portugal
Oral presentation
- 2021 **Journée GT GDMM** Nancy-France
Online oral presentation
- 2019 **The 5th Asian Conference on Pattern Recognition (ACPR)** Auckland-Newzealand
Poster presentation
- 2019 **Mathematic aspects of computer and information sciences(MACIS)** Istanbul-Turkey
Oral presentation
- 2019 **Journée GT-GDMM** Marseille-France
Oral presentation
- 2019 **Meeting on Tomography and Applications Discrete Tomography and Image Reconstruction**
Milano-Italy
Oral presentation
- 2018 **Journées Montoises** Bordeaux-France
Oral presentation
- 2018 **Journée MDSC** Nice-France
Oral presentation
- 2018 **Meeting on Tomography and Applications Discrete Tomography and Image Reconstruction**
Milano-Italy
Oral presentation
- 2017 **Words 2017** Montréal-Canada
Oral presentation
- 2017 **Meeting on Tomography and Applications Discrete Tomography and Image Reconstruction**
Milano-Italy
Oral presentation
- 2016 **Journées Montoises** Liège-Belgium
Oral presentation
- 2016 **3rd Algorithmic and Enumerative Combinatorics** Hagenberg-Austria
Poster presentation
- 2015 **Interaction** Grenoble-France
Oral presentation

Seminars:

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| 2021 | Emirati women support for the nation from establishment to achievement 2021 | Abu Dhabi-UAE |
| 2021 | Women in Combinatorics | Concordia-Canada |
| 2019 | Seminar at University of Firenze | Florence-Italy |
| 2019 | Seminar at University of Liège | Liège-Belgium |
| 2019 | Seminar at LIRIF, Paris diderot | Paris-France |
| 2018 | Seminar at LIGM, Paris Marne-la-vallée | Paris-France |
| 2018 | Seminar at University of Firenze | Florence-Italy |
| 2018 | Seminar at Laboratory I3S | Sophia Antipolis-France |
| 2017 | Seminar at Laboratory LAMA, LIMD team | Chambéry-France |
| 2016 | Seminar at Laboratory LAMA, | Chambéry-France |
| 2015 | Doctoral Seminar at Laboratory LAMA, | Chambéry-France |

Organization

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| 2021 | International Women in Mathematics Day 2021 Sorbonne university Abu Dhabi | |
| 2020 | 14th Edition of the "Meeting on Tomography and Applications" Mathematics Department of Politecnico di Milano | |
| 2019 | 13th Edition of the "Meeting on Tomography and Applications" Mathematics Department of Politecnico di Milano | |
| 2019 | DGCI, Digital geometry for computer imagery ESIEE-Paris,France | |
| 2016 | 5th Journée des doctorants de l'école doctorale EDMSTII. Grenoble,France | |
| 2016 | Journée des doctorants au SIF(société informatiques de France). Paris,France | |
| 2015 | Colloque international à la mémoire de Pierre Liardet, Number theory Numeration system and ergodic theory LAMA-Technolac,France | |

Other experiences

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| 2013–2014 | Scout of Lebanon. | Tripoli-Lebanon |
| 2003–2005 | Youth and red cross. | Tripoli-Lebanon |
| 2002–2005 | Scout of Lebanon. | Tripoli-Lebanon |
| 2003–2004 | Director of a social association | Tripoli-Lebanon |