

# Clément Tamines

PHD CANDIDATE IN COMPUTER SCIENCE

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## Summary

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I am a PhD Candidate in the Computer Science department at the University of Mons (UMONS) in Belgium. I am co-supervised by Véronique Bruyère (UMONS) and Jean-François Raskin (Université libre de Bruxelles). My research interests regard equilibria in non-zero-sum multiplayer games and solving parity and generalized parity games. I am also very interested in the field of machine learning.

## Education

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### University of Mons

Mons, Belgium

PHD IN COMPUTER SCIENCE, expected graduation in September 2022.

Oct. 2018 - Sept. 2022

UNIVERSITY CERTIFICATE IN ARTIFICIAL INTELLIGENCE, graduated *Magna Cum Laude*.

Oct. 2019 - Mar. 2020

MASTER IN COMPUTER SCIENCE, graduated *Summa Cum Laude*.

Sept. 2016 - Aug. 2018

BACHELOR IN COMPUTER SCIENCE, graduated *Cum Laude*.

Sept. 2013 - Aug. 2016

## Research Experience

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### University of Mons

Mons, Belgium

#### PHD CANDIDATE, SUPERVISED BY V. BRUYÈRE (UMONS) AND J.-F. RASKIN (ULB).

Oct. 2018 - Sept. 2022

- *Equilibria in Multiplayer Games with Multiple Objectives*.

#### TEACHING ASSISTANT

Oct. 2018 - Aug. 2022

- Directed the project for the course *Algorithmics and Bioinformatics* (Java 8 program for DNA fragment assembly).
- Obtained very positive student evaluation (good to excellent).

#### ADVISOR

Sept. 2018 - Aug. 2022

- Supervised 2 research internships on symbolic solving of games using Binary Decision Diagrams.
- Advised a Master student for a project on window techniques for solving parity games.

#### STUDENT TEACHING ASSISTANT

Sept. 2016 - May. 2018

- Tutored students for the Programming and Algorithmics I & II courses (Python 3 & Java 8).

## Publications

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- Véronique Bruyère, Jean-François Raskin, and **Clément Tamines**. **Stackelberg-Pareto Synthesis**. In Serge Haddad and Daniele Varacca, editors, 32nd International Conference on Concurrency Theory, CONCUR 2021, August 24-27, 2021, Virtual Conference, volume 203 of LIPIcs, pages 27:1–27:17. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2021.
- Véronique Bruyère, Guillermo A. Pérez, Jean-François Raskin, and **Clément Tamines**. **Partial Solvers for Generalized Parity Games**. In Reachability Problems - 13th International Conference, RP 2019, Brussels, Belgium, September 11-13, 2019, Proceedings, pages 63–78, 2019.

## Work Experience

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### Software Developer Intern

Tubize, Belgium

THALES BELGIUM SA.

Sept. 2017 - Nov. 2017

- Designed and implemented a constraint programming model for network generation in a radio configuration tool (Java 8 and Choco Solver).

## Programming Skills

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<b>Python</b>	Tensorflow (Keras), Scikit-learn, OpenAI Gym, Jupyter Notebook, PyTest
<b>Cloud service</b>	Google Colaboratory, FloydHub
<b>Java</b>	Swing, JUnit, Choco Solver
<b>Tools</b>	Git, Maven, JetBrains suite, Eclipse

## Languages

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- French** Native proficiency.  
**English** Full professional proficiency (C1 level - TOEIC 2021).  
**Dutch** Notions (looking to improve).

## Talks & Attended Research Events

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### TALKS (8)

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|------|---|-------------------|
| 2021 | <b>Stackelberg-Pareto Synthesis</b> , Highlights'21, held online    | Aachen, Germany   |
| 2021 | <b>Stackelberg-Pareto Synthesis</b> , CONCUR'21, held online        | Paris, France     |
| 2021 | <b>Stackelberg-Pareto Synthesis</b> , MFV Seminar                   | Brussels, Belgium |
| 2020 | <b>Formal Verification Using Games</b> , Youth Seminar              | Mons, Belgium     |
| 2019 | <b>Partial Solvers for Generalized Parity Games</b> , Highlights'19 | Warsaw, Poland    |
| 2019 | <b>Partial Solvers for Generalized Parity Games</b> , RP'19         | Brussels, Belgium |
| 2019 | <b>Partial Solvers for Generalized Parity Games</b> , MoRe'19       | Vancouver, Canada |
| 2019 | <b>Your Turn to Play!</b> , Math & Science Days'19                  | Mons, Belgium     |

### EVENTS (20)

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|------|--|-------------------|
| 2021 | <b>Highlights of Logic, Games and Automata</b> , Highlights'21, held online                      | Aachen, Germany   |
| 2021 | <b>CONCUR 2021: 32nd International Conference on Concurrency Theory</b> , CONCUR'21, held online | Paris, France     |
| 2021 | <b>SYNT 2021: 10th Workshop on Synthesis</b> , CAV'21 workshop, held online                      | Los Angeles, USA  |
| 2021 | <b>Reinforcement Learning: from Theory to Practice</b> , summer school                           | online            |
| 2021 | <b>Theoretical Foundations of Computer Systems Boot Camp</b> , seminars                          | online            |
| 2020 | <b>GandALF: Games, Automata, Logics, and Formal Verification</b> , GandALF'20                    | online            |
| 2020 | <b>Highlights of Logic, Games and Automata</b> , Highlights'20                                   | online            |
| 2020 | <b>Modelling and Verification of Parallel Processes</b> , MOVEP summer school                    | online            |
| 2020 | <b>Dynamics and Information</b> , workshop   | Tel Aviv, Israel  |
| 2019 | <b>Highlights of Logic, Games and Automata</b> , Highlights'19                                   | Warsaw, Poland    |
| 2019 | <b>13th International Conference on Reachability Problems</b> , RP'19                            | Brussels, Belgium |
| 2019 | <b>LearnAut: Learning and Automata</b> , LICS'19 workshop  | Vancouver, Canada |
| 2019 | <b>MoRe: Multi-objective Reasoning in Verification and Synthesis</b> , LICS'19 workshop          | Vancouver, Canada |
| 2019 | <b>Theory and Algorithms in Graph and Stochastic Games</b> , co-organizer                        | Mons, Belgium     |
| 2019 | <b>MdC: Mardi des Chercheurs</b> , UMONS research event  | Mons, Belgium     |
| 2019 | <b>CFV</b> , seminars  | Brussels, Belgium |
| 2019 | <b>MFV</b> , seminars  | Brussels, Belgium |
| 2018 | <b>Highlights of Logic, Games and Automata</b> , Highlights'18                                   | Berlin, Germany   |
| 2018 | <b>Logic and Learning</b> , FoPSS summer school  | Oxford, UK        |
| 2018 | <b>Modelling and Verification of Parallel Processes</b> , MOVEP summer school                    | Cachan, France    |

## Extracurricular Activity

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### Activities and Societies

UNIVERSITY OF MONS

- Managed communications for the General Association of Science Students.
- Represented students in the Faculty of Science Council.

Mons, Belgium

Sept. 2015 - Aug. 2018

### Student Jobs

UNIVERSITY OF MONS

- Guided and informed people through campus during open days.
- Informed people and promoted the faculty during student fairs (SIEP).

Mons, Belgium

Sept. 2015 - Aug. 2018