Pierre Ohlmann

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Experience

Faculty of Mathematics, Informatics and Mechanics, University of Warsaw   **Warsaw, Poland**
Postdoc, supervised by Michał Pilipczuk   *Jan 2022 - Dec 2024*

Institut de Recherche en Informatique Fondamentale   **Paris, France**
PhD, supervised by Olivier Serre and Nathanaël Fijalkow   *Sept 2018 - Oct 2021*

Institut de Recherche en Informatique Fondamentale   **Paris, France**
Master's student internship, supervised by Olivier Serre and Nathanaël Fijalkow   *Jan - Jun 2018*

Alan Turing Institute of Data Science & University College London   **London, UK**
Master's student internship, supervised by Nathanaël Fijalkow and Alexandra Silva   *Apr - Jun 2017*

Oxford Computer Science Department   **Oxford, UK**
Master's student internship, supervised by Joël Ouaknine and James Worrell   *May - Jul 2016*

Laboratoire I3S Nice Sophia Antipolis   **Sophia Antipolis, France**
Undergraduate student internship, supervised by Julien Provillard   *Jun - Jul 2015*

Education

École Normale Supérieure de Lyon   **Lyon, France**
Master's degree of Computer Science (2nd year), awarded with highest honors, ranked first   *Sept 2017 - Jun 2018*

Université Pierre et Marie Curie   **Paris, France**
Master's degree of Mathematics (1st year), awarded with highest honors, ranked first   *Sept 2016 - May 2017*

École Normale Supérieure de Lyon   **Lyon, France**
Master's degree of Computer Science (1st year), awarded with highest honors   *Sept 2015 - May 2016*

École Normale Supérieure de Lyon   **Lyon, France**
Undergraduate degree in Computer Science, awarded with highest honors   *Sept 2014 - Jun 2015*

Lycée Kleber   **Strasbourg, France**
Classes préparatoires aux grandes écoles   *Sept 2012 - Jun 2014*

Publications

Peer-reviewed journals

Characterizing positionality in games of infinite duration over infinite graphs   **TheoretiCS**
Single author   *2023*

Controlling a random population   **Logical Methods in Computer Science**
With Nathanaël Fijalkow and Thomas Colcombet   *2022*

The theory of universal graphs for infinite duration games   **Logical Methods in Computer Science**
With Nathanaël Fijalkow and Thomas Colcombet   *2021*

Lower bounds for arithmetic circuits via the Hankel matrix   **Computational Complexity**
With Nathanaël Fijalkow, Guillaume Lagarde and Olivier Serre   *2021*

Semialgebraic invariant synthesis for the Kannan-Lipton orbit problem   **Theory of Computing Systems**
With Nathanaël Fijalkow, Joël Ouaknine, Amaury Pouly and James Worrell   *2019*

Proceedings of peer-reviewed international conferences

Rank-decreasing transductions   **LICS**
With Mikołaj Bojanczyk   *2024*

Positional omega-regural languages   **LICS**
With Antonio Casares   *2024*

Positionality in Sigma2 and a completeness result	**STACS**
With Michał Skrzypczak	*2024*
Flipper games for monadically stable graph classes	**ICALP**
With J. Gajarský, N. Mählmann, R. McCarty, Mi. Pilipczuk, W. Przybyszewski,	*2023*
S. Siebertz, M. Sokołowski and S. Toruńczyk	
Canonical decompositions in monadically stable and bounded shrubdepth graph classes	**ICALP**
With Michał Pilipczuk, Wojchiech Przybychewski and Szymon Toruńczyk	*2023*
Characterising memory in infinite games	**ICALP**
With Antonio Casares	*2023*
A technique to speed up symmetric attractor-based algorithms for parity games	**FSTTCS**
With Marcin Jurdziński and K. S. Thejaswini	*2022*
Characterizing positionality in games of infinite duration over infinite graphs	**LICS**
Single author	*2022*
The GKK Algorithm is the Fastest over Simple Mean-Payoff Games	**CSR**
Single author	*2022*
Best paper award	
Scaling Neural Program Synthesis with Distribution-based Search	**AAAI**
With Nathanaël Fijalkow, Guillaume Lagarde, Théo Matricon, Kevin Ellis and Akarsh Potta	*2022*
Selected for publication (5% of papers)	
New Algorithms for Combinations of Objectives using Separating Automata	**Gandalf**
With Ashwani Anand, Nathanaël Fijalkow, Aliénor Goubault-Larrecq and Jérôme Leroux	*2021*
Invited for publication in LMCS special issue	
The complexity of mean payoff games using universal graphs	**MFCS**
With Nathanaël Fijalkow and Paweł Gawrychowski	*2020*
Lower bounds for arithmetic circuits via the Hankel matrix	**STACS**
With Nathanaël Fijalkow, Guillaume Lagarde and Olivier Serre	*2022*
Controlling a Random Population	**FoSSaCS**
With Nathanaël Fijalkow and Thomas Colcombet	*2020*
Invited for publicatin in LMCS special issue	
On the Monniaux Problem in Abstract Interpretation	**SAS**
With N. Fijalkow, E. Lefaucheux, J. Ouaknine, A. Pouly and J. Worrell	*2019*
Semialgebraic Invariant Synthesis for the Kannan-Lipton Orbit Problem	**STACS**
With Nathanaël Fijalkow, Joël Ouaknine, Amaury Pouly and James Worrell	*2017*
Invited for publication in ToCS special issue	

Preprints (unpublished)...

Fast value iteration for energy games	**arxiv**
With Antonio Casares	*2021*

Talks

Presentations in international conferences and workshop...

ATLAS	**Rennes**
France	*Workshop on automata theory*
STACS 2024	**Clermont-Ferrand, France**
International conference on Theoretical Computer Science	*Mar 2024*
ICALP 2023	**Paderborn, Germany**
International colloquium on Automata, Languages and Programming	*Jul 2023*
LICS 2022	**Haifa, Israël**
International conference on Logics in Computer Science	*Aug 2022*

CSR 2022　　Online
International conference on Theoretical Computer Science　　*Jun 2022*

Highlights of Logics, Games and Automata 2022　　Paris, France
International conference on Logics, Games and Automata　　*Jun 2022*

Automata Theory and Applications: Games, Learning and Structures　　Online
International workshop on automata theory, hosted by national university of Singapour　　*Sep 2021*

Highlights of Logics, Games and Automata 2021　　Online
International conference on Logics, Games and Automata　　*Sep 2021*

FoSSaCS 2021　　Online
International conference on Theoretical Computer Science　　*Mar 2021*

Spotlight on Games Workshop 2020　　Online
International workshop on Games　　*Nov 2020*

Highlights of Logics, Games and Automata 2020　　Online
International conference on Logics, Games and Automata　　*Sep 2020*

STACS 2020　　Montpellier, France
International conference on Theoretical Computer Science　　*Mar 2020*

Highlights of Logics, Games and Automata 2019　　Warsaw, Poland
International conference on Logics, Games and Automata　　*Sep 2019*

RP 2019　　Brussels, Belgium
International conference on Reachability Problems (talk only presentation)　　*Sep 2019*

FILOFOCS 2018　　Paris, France
International workshop on Foundations of Computer Science　　*Oct 2018*

Highlights of Logics, Games and Automata 2018　　Berlin, Germany
International conference on Logics, Games and Automata　　*Sep 2018*

WACT 2018　　Paris, France
International workshop on Algebraic Complexity Theory　　*Mar 2018*

STACS 2017　　Hannover, Germany
International conference on Theoretical Computer Science　　*Mar 2017*

Presentations in seminars and research project meetings

Journées scientifies du LIS　　Carry-le-Rouet
France　　*Scientific days of the lab*

GT DAAL meeting　　Rennes
France　　*Yearly meeting of national working group*

LIS pole calcul seminar　　Marseille, France
Monthly pole seminar in LIS　　*Mar 2023*

MIMUW seminar　　Warsaw, Poland
Weekly seminar in automata theory team at MIMUW　　*Jun 2023*

MOVE seminar　　Marseille, France
Weekly seminar in model-checking and verification team at LIS lab, team MOVE　　*Dec 2022*

Kolmogorov seminar on complexity　　Online
Weekly team seminar　　*Nov 2022*

M2F seminar　　Bordeaux, France
Bi-monthly seminar for formal methods and models department in LaBRI　　*Oct 2022*

LMF seminar　　Saclay, France
Weekly seminar in model-checking and synthesis team at LMF lab　　*Oct 2022*

MC2 seminar   **Lyon, France**
Weekly seminar in computation, complexity and combinatorics team at LIP   *Oct 2022*

IRIF seminar   **Paris, France**
Weekly seminar in automata team at IRIF   *Apr 2022*

MIMUW seminar   **Warsaw, Poland**
Weekly seminar in algorithms team at MIMUW   *Jan 2022*

MIMUW seminar   **Warsaw, Poland**
Weekly seminar in automata theory team at MIMUW   *Jan 2022*

LMF seminar   **Saclay, France**
Weekly seminar in model-checking and synthesis team at LMF lab   *Nov 2021*

PLUME seminar   **Lyon, France**
Weekly seminar in PLUME team at LIP lab   *Nov 2021*

MOVE seminar   **Marseille, France**
Weekly seminar in MOVE team at LIS lab   *Nov 2021*

LINKS seminar   **Lille, France**
Weekly seminar in LINKS project at CRIStAL lab, held online   *Jun 2021*

LMF verification seminar   **Gif-sur-Yvettes, France**
Weekly seminar in the verification team of LMF, held online   *Apr 2021*

TFCS seminar   **Berkley, USA**
Seminar at spring research program of Simons Institute, held online   *Mar 2021*

YR-OWLS seminar   **Worldwide**
International weakly seminar on semantics and logics (young researcher track), held online   *Mar 2021*

MIMUW automata theory seminar   **Warsaw, Poland**
Weekly seminar in the automata team of MIMUW, held online   *Mar 2021*

Journées ASV   **Paris, France**
Local research group annual meeting, held online   *Oct 2020*

LaBRI seminar   **Bordeaux, France**
Weekly seminar in the formal methods team of LaBRI, held online   *Apr 2020*

IRIF seminar   **Paris, France**
Weekly seminar in the automata team of IRIF, held online   *Apr 2020*

IRISA seminar   **Rennes, France**
Weekly seminar in the algorithm team of IRISA   *Jan 2020*

LACL seminar   **Créteil, France**
Weekly seminar in the algorithm team of LACL   *Jan 2020*

GDR ALGA meeting   **Paris, France**
Reseach group meeting on themes related to automata and game theory   *Oct 2019*

LIGM seminar   **Marne-la-Vallée, France**
Weekly seminar in the algorithm team of LIGM   *Feb 2019*

ANR Codys   **meeting Paris, France**
Research project meeting on dynamical systems and applications   *Nov 2018*

Cambridge seminar   **Cambridge, UK**
Weekly seminar in the Logics and Semantics group of the Computer Science department   *Nov 2018*

IRIF seminar   **Paris, France**
Weekly seminar in the automata team of IRIF   *Sep 2018*

GDR ALGA meeting   **Lille, France**
Research group meeting on themes related to automata and game theory   *Oct 2018*

ANR COMPA meeting	**Lyon, France**
Research project meeting on Algebraic Complexity Theory	*Sept 2018*
LABRI seminar	**Bordeaux, France**
Weekly seminar in the formal methods team in LABRI	*Apr 2018*
ANR DELTA meeting	**Paris, France**
Research project meeting on transducers and automata theory	*Mar 2018*
Alan Turing Institute seminar	**London, UK**
Weekly seminar in the Alan Turing Institute of Data Science	*Jun 2017*
IRIF seminar	**Paris, France**
Weekly seminar in the automata team in IRIF	*May 2017*

Teaching and supervising

Co-supervised 6 weeks research internship of Olivier Idir on combinatorial games	**IRIF, Paris, France**
Along with Olivier Serre and Mathieu Mari	*Jun 2020 - Jul 2020*
Invited lecture on infinite duration games	**Paris, France**
Game theory techniques in computer science, 3 hours	*Oct 2023*
Master Parisien de Recherche en Informatique Invited lecture on infinite duration games	
Invited lectures on infinite duration games	**University of Warsaw, Poland**
Algorithmic aspects of game theory, 6 hours	*May 2022*
Teacher assistant in M2	**University of Warsaw, Poland**
Algorithmic aspects of game theory, 24 hours	*Jan 2022 - Jun 2022*
Teacher assistant in L2	**Université de Paris, France**
Profesionnalizing project, 20 hours	*Sep 2020 - Jan 2021*
Teacher assistant in L1	**Université de Paris, France**
Introduction to programming in Java, 32 hours	*Sep 2020 - Jan 2021*
Teacher assistant in L1	**Université de Paris, France**
Principles of binary machines, 32 hours	*Sep 2020 - Jan 2021*
Teacher assistant in L2	**Université Paris Diderot, France**
Introduction to automata theory, 32 hours	*Sep 2019 - Jan 2020*
Teacher assistant in L1	**Université Paris Diderot, France**
Basics of programming in Python, 32 hours	*Sep 2019 - Jan 2020*
Teacher assistant in L1	**Université Paris Diderot, France**
Basics of programming in Python, 32 hours	*Sep 2018 - Jan 2019*
Teacher assistant in L2	**Université Paris Diderot, France**
Principles of Object-Oriented programming, 32 hours	*Sep 2018 - Jan 2019*

Other

Participation to program committees for international conferences...

PC member for CSL	
Annual international conference	*2024*
PC member for CSR	
Annual international conference	*2022*

Reviewing for international conferences and journals...

Subreviewing for conferences or journals (Total:27)
LICS (x8), ICALP (x8), STACS (x3), SODA (x2), MFCS (x2), FI (x1), ...

Organisation of scientific events

LMW@CSL 2023
Logic mentoring workshop at CSL conference   *2023*

Automata seminar
Weekly team seminar at IRIF   *2019-2021*

Highlights of Logics, Games and automata 2020
Annual international conference, held online   *2020*

FOCS 2018
Student volunteer for international conference   *2018*

Participation to scientific events

CIRM thematic month   **Marseille, France**
month-long seminar on Groups, Dynamics, Complexity and Words   *Feb 2024*

Dagstuhl seminar   **Dagstuhl, Germany**
International workshop on Reactive Synthesis   *Sept 2023*

Workshop on graph theory   **Aussois, France**
First workshop on twin-width   *May 2023*

Autobóz 2022   **Sobótka, Poland**
Problem-solving based workshop on TCS   *September 2022*

Algomanet research school in combinatorics   **Kraków, Poland**
Research school on posets and product theorems for planar graphs   *May 2022*

Parameterized Algorithms Retreat of University of the Warsaw   **Bendlewo, Poland**
International workshop on parameterized complexity   *Mar 2022*

Research retreat   **Hauteluce, France**
International workshop on reactive synthesis   *Mar 2022*

Dagstuhl seminar   **Dagstuhl, Germany**
International workshop on Unambiguity in automata theory   *Nov 2021*

Automata Theory and Applications: Games, Learning and Structures   **Online**
International workshop on automata theory, hosted by national university of Singapour   *Sep 2021*

Simons Institute spring 2021 research program   **Berkeley, USA**
International workshop on Theoretical Foundations of Computer Science, held online   *Jan 2021 - May 2021*

Caleidoscope 2019 IHP   **Paris, France**
Research school on computational complexity   *Jun 2019*

Bellairs workshop on Learning and Verification   **Holetown, Barbados**
International workshop on Learning and Verification   *Mar 2019*

CAALM 2019   **Chennai, India**
French-Indian workshop on Logics and Algorithms   *Jan 2019*

ProbProgSchool 2017   **Braga, Portugal**
Summer school on Foundations of Probabilistic Programming   *Jun 2017*