






Curriculum vitae

# Elli Anastasiadi

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Post-doc at the department of Information Technology,  
Uppsala University, Sweden

## PERSONAL DETAILS

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## RESEARCH & EDUCATION

<b>Uppsala University (Ongoing)</b> <i>Postdoc position with the algorithmic program verification group.</i>	<b>Uppsala, Sweden</b> 24/10/2022 - Today
<b>Reykjavik University</b> <i>PhD, ICE-TCS, Supervisors: Luca Aceto, Anna Ingólfssdóttir</i> Thesis title: "Syntactic approaches to negative results in process algebras and modal logics".	<b>Reykjavik, Iceland</b> 22/2/2019 - 10/10/2022
<b>NTUA &amp; NKUA</b> <i>Masters program "Algorithms, Logic and Mathematics" GPA: 9.0/10.0 .</i> Specializations: Logic in computer science.	<b>Athens, Greece</b> Sept 2018 - Feb 2019
<b>National Technical University of Athens (NTUA)</b> <i>5-year diploma (MSc) in Applied Mathematics GPA: 7.9/10.0 .</i> Specializations: Applied statistics, Mathematics of Computer Science. Thesis title: "Parameterized complexity and model checking on bounded families of graphs" (grade: 10/10).	<b>Athens, Greece</b> Sep 2013 - Sep 2018

## PUBLICATIONS

### JOURNAL PUBLICATIONS

- Non-Negative Decomposition of Multivariate Information: from Minimum to Blackwell Specific Information. May 2024. [DOI][PDF]  
With Tobias Mages, and Christian Rohner.  
In: **Entropy**
- Axiomatizing recursion-free, regular monitors. June 2022. [DOI] [PDF]  
With Luca Aceto, Antonis Achilleos, and Anna Ingólfssdóttir.  
In: **Journal of Logical and Algebraic Methods in Programming.**
- On the axiomatisability of priority III: Priority strikes again. October 2020. [DOI] [PDF]  
With Luca Aceto, Valentina Castiglioni, Anna Ingólfssdóttir, and Bas Luttik, Mathias Ruggaard Pedersen  
In: **Theoretical Computer Science.**

### CONFERENCE PUBLICATIONS

- On probabilistic Monitorability. December 2022. [DOI] [PDF]  
With Luca Aceto, Antonis Achilleos, Adrian Francalanza, Anna Ingólfssdóttir, Karoliina Lehtinen, and Mathias Ruggaard Pedersen.  
In **Principles of Systems Design - Special Issue for Tom Henzinger's 60th Birthday.**
- Complexity through Translations for Modal Logic with Recursion. September 2022. [DOI],[PDF]  
With Luca Aceto, Antonis Achilleos, Adrian Francalanza, and Anna Ingólfssdóttir.  
In: **GandALF 2022: Games, Automata, Logics, and Formal Verification.**
- Non-Finite Axiomatisability Results via Reductions: CSP Parallel Composition and CCS Restriction. September 2022. [DOI]  
With Luca Aceto, Valentina Castiglioni, and Anna Ingólfssdóttir.

- In: **Lecture Notes in Computer Science - Special Issue for Frits Vaandrager's 60th Birthday.**
- Monitoring hyperproperties with circuits. Short paper. June 2022. [DOI] [PDF]  
With Luca Aceto, Antonis Achilleos, Adrian Francalanza.
- In: **International Conference on Formal Techniques for Distributed Objects, Components, and Systems.**
- In search of lost time: Axiomatizing parallel composition in process algebras. July 2021. (Invited paper) [DOI] [PDF]  
With Luca Aceto, Valentina Castiglioni, Anna Ingólfssdóttir, and Bas Luttik:
- In: **Logic in Computer Science.**
- On the Axiomatizability of Priority III: The Return of Sequential Composition. September 2019. [DOI],[PDF]  
With Luca Aceto, Valentina Castiglioni, Anna Ingólfssdóttir, and Mathias Ruggaard Pedersen:
- In: **20th Italian Conference on Theoretical Computer Science.**

## UNDER REVIEW.....

- Complexity results for modal logic with recursion via translations and tableaux [PDF]  
With Luca Aceto, Antonis Achilleos, Adrian Francalanza, and Anna Ingólfssdóttir.
- Centralized vs Decentralized Monitors for Hyperproperties [PDF]  
With Luca Aceto, Antonis Achilleos, Adrian Francalanza, Daniele Gorla, and Jana Wagemaker.

## MANUSCRIPTS.....

- Syntactic approaches to negative results in process algebras and modal logics. October 2022. [DOI], [PDF]  
PhD thesis
- Parameterized complexity and model checking on bounded families of graphs. October 2018. [DOI],[PDF]  
Masters thesis.

## INFORMAL & WORKSHOP PUBLICATIONS.....

- PLS 2024 - On the expressiveness of hyperlogics. With Antonis Achilleos, R. Govind, and Jana Wagemaker.
- PLS 2024 - Satisfiability-checking of modal logic with recursion via translations and tableaux. With Luca Aceto, Antonis Achilleos, Adrian Francalanza, and Anna Ingólfssdóttir.
- NWPT 2023 - Infinite hard families of equations in process algebras. With Luca Aceto.
- RADICAL 2023 - Communicating Monitors for Hyper- $\mu$ HML. With Antonis Achilleos, Adrian Francalanza, and Jana Wagemaker.
- PLS 2022 - Epistemic logic for verifying runtime verification communication protocols. With Antonis Achilleos, Adrian Francalanza and Jasmine Xuereb.
- NWPT 2021 - Monitoring Hyperproperties with circuits. With Luca Aceto, Antonis Achilleos and Adrian Francalanza.
- NWPT 2019 - Axiomatizing equivalences over regular monitors. With Luca Aceto and Anna Ingólfssdóttir  
Online proceedings.
- PLS 2019 - An Axiomatization of Verdict Equivalence over (Closed) Regular Monitors. With Luca Aceto and Anna Ingólfssdóttir.

## AWARDS & GRANTS

- (Not funded with grade 84.40%) Marie-Curie European Postdoctoral Fellowship application for project "BeMo: Beyond Monitorability", to be hosted at Aix-Marseille Université. Role: main applicant.
- Reykjavik University Research Fund for the project "REVoCoP: Runtime and Equational Verification of Concurrent Processes". Feb 2022. Total amount: 8000000 ISK. Role: main applicant.
- ACM-W, Women in Computing Scholarship Award 2019 - 1000 USD (towards attending ICALP/LICS).
- Hellenic Mathematical Society, 1st prize in Panhellenic Mathematical Competition Euclid 2009.

## RESEARCH ACTIVITIES

### MASTER STUDENT SUPERVISION.....

**August Bredberg**

**Spring 2023**

*"Monitoring software usage and behaviour based on SAAS data: case Gemini Water portfolio".*

### REVIEWER DUTY.....

ICALP 2019, ICALP 2020, RV 2020, LFCS 2022, STACS 2022, SETTA 2022, STACS 2023, ESOP 2023, CONCUR 2024

## COMMITTEES.....

<b>EXPRESS/SOS 2024</b> <i>Calgary, Canada</i> Program committee	Sep 2024
<b>Panhellenic Logic Symposium</b> <i>Thessaloniki, Greece</i> Scientific & program committee	July 2024
<b>LMW@CSL</b> <i>Naples, Italy</i> Organising committee	Feb 2024
<b>Essays Dedicated to Frits W. Vaandrager on the Occasion of His 60th Birthday</b> <i>Online</i> Program committee	Sep 2022
<b>Logic Colloquium 2022</b> <i>Reykjavik, Iceland</i> Local organiser	June 2022
<b>The New York Colloquium on Algorithms and Complexity</b> <i>New York, USA (online)</i> Organising committee	Dec 2021
<b>32nd Nordic Workshop on Programming Theory</b> <i>Reykjavik, Iceland</i> Local organiser	Nov 2021

## MISC.....

<b>Postdoc Representative</b> <i>Division of Computer Systems, Uppsala University</i>	March 2024 (Ongoing)
<b>SIGLOG monthly newsletter</b> <i>Coordinator</i>	Jan 2024 (Ongoing)
<b>IT-DoCS Seminars</b> <i>Organiser &amp; Chair</i>	Nov 2023 (Ongoing)
<b>Member of the new head of IT-DoCS committee</b> <i>Postdoc representative</i>	Apr 2023

## TALKS.....

<b>Nordic Workshop of Programming Theory</b> <i>Västerås, Sweden</i> ○ Talk title: "Infinite hard families of equations in process algebras".	22/11/2013
<b>Athens Colloquium of Algorithms and Complexity</b> <i>Athens, Greece</i> ○ "Data structures for the verification of weak memory models".	26/08/2023
<b>Open Problems in Concurrency Theory</b> <i>Bertinoro, Italy</i> ○ "Verification of weak memory models".	27/06/2023
<b>Formal Methods seminar</b> <i>Marseille, France</i> ○ "Verification of weak memory models".	8/06/2023
<b>Formal Methods seminar</b> <i>Gothenburg, Sweden (online)</i> ○ "Monitoring Hyperproperties with Circuits: Foundation and Extensions".	23/06/2022
<b>Division of Computer Systems seminar</b> <i>Uppsala, Sweden (online)</i> ○ "Monitoring hyperproperties with circuits".	1/6/2022
<b>Henzinger group seminar</b>	10/5/2022

*Institute of science and technology, Austria (online)*

- “Monitoring hyperproperties with circuits”.

**ALMA Masters program seminar**

**June 2021**

*Athens, Greece*

- “Natural Deduction: From classic to modal logic”.

**CoReLab Seminar**

**June 2020**

*Athens, Greece*

- “The Uppaal model checker”.

**Reykjavik University Computer Science Flash Talks**

**Feb 2020**

*Reykjavik, Iceland*

- “Using equational logic towards formal verification of concurrent systems”.

**Nordic Workshop of Programming Theory**

**Nov 2019**

*Tallinn, Estonia*

- Talk title: “Axiomatizing equivalences over regular monitors”.

**Panhellenic Logic Symposium**

**June 2019**

*Anogetia, Greece*

- Talk title: “An Axiomatization of Verdict Equivalence over Regular Monitors”.

**ICE-TCS Theory Day**

**April 2019**

*Reykjavik, Iceland*

- “Fine-grained complexity”.

**ICE-TCS Seminar**

**March 2019**

*Reykjavik, Iceland*

- “Parameter trade-offs for the Model Checking Problem”.

## TEACHING RECORD

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**Uppsala University, Division of Computer Systems**

**Oct 2022 - present**

*Instructor*

*Uppsala, Sweden*

- Modeling and Verification: Spring 2024.
- Real Time Systems (lectures on Modeling and Verification of Timed Automata): Autumn 2022 & 2023
- Study group on Automata, Logics, and Infinite games: Autumn 2023

**Reykjavik University**

**March 2019 - Oct 2022**

*Department of Computer Science*

*Reykjavik, Iceland*

*Instructor:*

- Real-time Models (3-week course, T-219-REMO): Summer 2021.
- Modeling and Verification (T-707-MOVE): Spring 2021.
- Theory of Computation (T-519-STOR): Winter 2021.
- Logic in Computer Science (T-505-ROKF): Spring 2020.

*Teaching assistant:*

- Theory of Computation (T-519-STOR): Winter 2019 & 2020.
- Real Time Models (3-week course, T-219-REMO): Summer 2019 & 2022.
- Modeling and Verification (SC-T-707-MOVE): Spring 2019 & 2022.
- Logic in Computer Science (T-505-ROKF): Spring 2022.

**CoReLab NTUA**

**Sep 2018 - Feb 2019**

*Teaching assistant*

*Athens, Greece*

- Introduction to Computer Science: Dep. of Electrical Engineering.
- Discrete Mathematics I: Dep. of Electrical Engineering & Dep. of Applied Mathematics.
- Introduction to programming (C,C++): Dep. Of Electrical Engineering.

## OTHER WORK EXPERIENCE

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**CoReLab NTUA**

**Athens, Greece**

*Teaching assistant/Lab member*

*Sep 2017 - Feb 2019*

- Hired for TA of several courses during undergrad studies.
- Co-organized and gave lectures for various elective courses.
- Participated in research activities: <https://arxiv.org/abs/1902.05529>.

#### **Megaventory Inc.**

*Software Engineer Intern*

**Athens, Greece**

*June 2018 - Aug 2018*

- Implemented interactive user guides.
- Designed an extension to the database for implementing Landed Cost calculations.
- Performed a risk analysis and a response analysis over user statistics.
- Created automatic gadget for testing compatibility of new features with restricted user app views.

#### **Public education sector**

*High School Student Tutor*

**Athens, Greece**

*Sep 2017 - June 2017*

- Provided tutorship for high school students in Mathematics, Statistics and Informatics.

## **PERSONAL SKILLS**

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- Languages: **Greek** - Native, **English** - Proficient (long time user in professional and personal environments), **French** - Basic (basic education and occasional low-level use).
- Research Software: Uppaal, Minitab, R, Mathematica, Matlab
- Programming Languages & Skills: Python, C, C++, Java, HTML/CSS, Haskell, SQL, Fortran.
- Miscellaneous: Drivers license, leisure sailboat driving and management ability, percussion instrument proficiency, various music experience in other instruments and skills (guitar, piano, singing, marching band performance), sound technician experience.

## **NAMES OF REFERENCES**

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- Luca Aceto, [luca@ru.is](mailto:luca@ru.is)
- Parosh Abdulla, [parosh.abdulla@it.uu.se](mailto:parosh.abdulla@it.uu.se)
- Antonios Achilleos, [antonios@ru.is](mailto:antonios@ru.is)