






Curriculum vitae

# Elli Anastasiadi

Lägerhyddsvägen 1, 752 37 Uppsala

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

## PERSONAL DETAILS

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h-index: 3     DBLP     ORCID

## 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

- Complexity results for modal logic with recursion via translations and tableaux. Aug 2024. [DOI] [PDF]  
With Luca Aceto, Antonis Achilleos, Adrian Francalanza, and Anna Ingólfssdóttir.  
In: **Logical Methods in Computer Science**
- 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

- Centralized vs Decentralized Monitors for Hyperproperties. Sep 2024. [PDF]  
With Luca Aceto, Antonis Achilleos, Adrian Francalanza, Daniele Gorla, and Jana Wagemaker.  
In **CONCUR**.
- 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

- Consistency Checking against the Release-Acquire Semantics [PDF]  
With Parosh Abdulla and Samuel Grahn.

## 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, EXPRESS/SOS 2024, ICTAC 2024

### COMMITTEES.....

**EXPRESS/SOS 2024**

**Sep 2024**

*Calgary, Canada*

Program committee

**Panhellenic Logic Symposium**

**July 2024**

*Thessaloniki, Greece*

Scientific & program committee

**LMW@CSL**

**Feb 2024**

*Naples, Italy*

Organising committee

**Essays Dedicated to Frits W. Vaandrager on the Occasion of His 60th Birthday**

**Sep 2022**

*Online*

Program committee

**Logic Colloquium 2022**

**June 2022**

*Reykjavik, Iceland*

Local organiser

**The New York Colloquium on Algorithms and Complexity**

**Dec 2021**

*New York, USA (online)*

Organising committee

**32nd Nordic Workshop on Programming Theory**

**Nov 2021**

*Reykjavik, Iceland*

Local organiser

### MISC.....

**Postdoc Representative**

**March 2024 (Ongoing)**

*Division of Computer Systems, Uppsala University*

**SIGLOG monthly newsletter**

**Jan 2024 (Ongoing)**

*Coordinator*

**IT-DoCS Seminars**

**Nov 2023 (Ongoing)**

*Organiser & Chair*

**Member of the new head of IT-DoCS committee**

**Apr 2023**

*Postdoc representative*

### TALKS.....

**Trends in Concurrency Theory**

**9/9/2024**

*Calgary, Canada*

○ Talk title: "Hyperproperties".

**Nordic Workshop of Programming Theory**

**22/11/2023**

*Västerås, Sweden*

○ Talk title: "Infinite hard families of equations in process algebras".

**Athens Colloquium of Algorithms and Complexity**

**26/08/2023**

*Athens, Greece*

○ "Data structures for the verification of weak memory models".

**Open Problems in Concurrency Theory**

**27/06/2023**

*Bertinoro, Italy*

- “Verification of weak memory models”.
- Formal Methods seminar** 8/06/2023  
*Marseille, France*
- “Verification of weak memory models”.
- Formal Methods seminar** 23/06/2022  
*Gothenburg, Sweden (online)*
- “Monitoring Hyperproperties with Circuits: Foundation and Extensions”.
- Division of Computer Systems seminar** 1/6/2022  
*Uppsala, Sweden (online)*
- “Monitoring hyperproperties with circuits”.
- Henzinger group seminar** 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  
*Anoigia, 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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|---|---|
| <b>Uppsala University, Division of Computer Systems</b><br><i>Instructor</i> <ul style="list-style-type: none"> <li>○ Modeling and Verification: Spring 2024.</li> <li>○ Real Time Systems (lectures on Modeling and Verification of Timed Automata): Autumn 2022 &amp; 2023</li> <li>○ Study group on Automata, Logics, and Infinite games: Autumn 2023</li> </ul>   | <b>Oct 2022 - present</b><br><i>Uppsala, Sweden</i>       |
| <b>Reykjavik University</b><br><i>Department of Computer Science</i><br><b>Instructor:</b> <ul style="list-style-type: none"> <li>○ Real-time Models (3-week course, T-219-REMO): Summer 2021.</li> <li>○ Modeling and Verification (T-707-MOVE): Spring 2021.</li> <li>○ Theory of Computation (T-519-STOR): Winter 2021.</li> <li>○ Logic in Computer Science (T-505-ROKF): Spring 2020.</li> </ul> <b>Teaching assistant:</b> <ul style="list-style-type: none"> <li>○ Theory of Computation (T-519-STOR): Winter 2019 &amp; 2020.</li> <li>○ Real Time Models (3-week course, T-219-REMO): Summer 2019 &amp; 2022.</li> <li>○ Modeling and Verification (SC-T-707-MOVE): Spring 2019 &amp; 2022.</li> </ul> | <b>March 2019 - Oct 2022</b><br><i>Reykjavik, Iceland</i> |

- Logic in Computer Science (T-505-ROKF): Spring 2022.

#### **CoReLab NTUA**

*Teaching assistant*

**Sep 2018 - Feb 2019**

*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**

*Teaching assistant/Lab member*

**Athens, Greece**

*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)