Curriculum Vitae
Alessia Andò

orcid.org/0000-0002-4051-2049

1 Positions

3. 01/07/2023–present. **Postdoctoral researcher** (Numerical analysis, MAT/08), Department of Mathematics, Computer Science and Physics, U. Udine.
2. 01/09/2021–30/06/2023. **Postdoctoral researcher** (Numerical analysis, MAT/08), Area of Mathematics, Gran Sasso Science Institute, L'Aquila.
1. 01/09/2020–31/08/2021. **Postdoctoral researcher** (Numerical analysis, MAT/08), Department of Mathematics, Computer Science and Physics, U. Udine.

2 Education background

2.1 Qualifications

4. 12/03/2020. **PhD** in Computer Science, Mathematics and Physics, Università di Udine, thesis *Collocation methods for complex delay models of structured populations*, supervisor D. Breda, cum laude.
3. 16/12/2016. **Master** in High Performance Computing, SISSA/ICTP Trieste, thesis *Characterization of Generali customers as a network and profiling of its communities*, supervisor S. Cozzini, completed with merit.
2. 23/07/2014. **MSc** in Mathematics, University of Udine, thesis *The Ramsey theorem and the rainbow Ramsey theorem in second-order arithmetic*, supervisor A. Marcone, 110/110 cum laude.
1. 17/07/2012. **BSc** in Mathematics, University of Udine, thesis *Giochi di parità: una prospettiva logica*, supervisor G. D'Agostino, 110/110 cum laude.

2.2 PhD education

8. 09/2019. Periodic orbits of dynamical systems - part 2 (B. Krauskopf and H. Osinga, University of Auckland, NZ).
7. 07/2019. Periodic orbits of dynamical systems - part 1 (D. Breda, University of Udine).
6. 09/2018. Medvedev and Muchnik degrees (P. Shafer, University of Leeds, UK).
5. 02/2018–05/2018. Numerical methods for differential equations (R. Vermiglio, University of Udine).
4. 11/2017. Computable analysis (V. Brattka, Technische Universität München, DE).
3. 03/2017–05/2017. Theory of distributions (F. Zanolin, University of Udine).
2. 02/2017–05/2017. Applied dynamical systems (D. Breda and R. Vermiglio, University of Udine).
1. 01/2017. Temporal Logics: Satisfiability Checking, Model Checking and Synthesis (A. Montanari, M. Reynolds, University of Western Australia, AUS).

2.3 Complimentary education

4. 11/2017. Research funding opportunities, 2 hours.
3. 06/2017. Public speaking, 8 hours.
2. 02/2017–05/2017. English for academic purposes, 40 hours.
1. 02/2017. Basic workplace safety, 4 hours.

2.4 Schools

5. 18–23/06/2023. 18th Dobbiaco Summer School, Dobbiaco (BZ).
   Topic: **Data-driven Methods for the Computational Sciences**.
   Lecturers: N. Kutz, K. Urban.
4. 05–09/09/2022. CIME Summer School, Cetraro (CZ).
   Topic: **Mathematical modeling for epidemiology: analysis, simulation and forecasting**.
   Lecturers: T. Britton, O. Diekmann, C. Donnelly, M. Falcone.
3. 06–10/09/2021. CIME Summer School, Cetraro (CZ).
   Topic: **Recent stability issues for linear dynamical systems. Matrix nearness problems and eigenvalue optimization**.
   Lecturers: N. Gillis, N. Guglielmi, C. Lubich, V. Mehrmann, B. Vandereycken.
2. 25–29/11/2019. CISM Advanced School on **delay**, Udine (UD).
   Topic: **Controlling Delayed Dynamics: Advances in Theory, Methods and Applications**.
   Lecturers: D. Breda, T. Insperger, B. Krauskopf, W. Michiels, S. I. Niculescu, S. Verdyun Liunel.
1. 03–07/07/2017. CIME-EMS Summer School on **splines and PDEs**, Cetraro (CZ).
   Topic: **Recent advances from Approximation Theory to Structured Linear Algebra**.
   Lecturers: A. Kunoth, T. Lyche, S. Serra-Capizzano, G. Sangalli.

3 Publications

3.1 Journal articles

14. A. Andò, N. Cangiotti, M. Sensi, *Exploring Exponential Runge-Kutta Methods: A Survey*, Commun. Math. Res., 42:2 (2026), pp. 191–240, doi: 10.4208/cmr.2026-0024.
13. A. Andò, S. De Reggi, F. Scarabel, R. Vermiglio, J. Wu *Behavior-induced oscillations in epidemic outbreaks with distributed memory: Beyond the linear chain trick using numerical methods*, Math. Biosci. Eng., 23 (2025), pp. 76–96, doi: 10.3934/mbe.2026004.
12. A. Andò, J. Sieber, *Boundary-value problems of functional differential equations with state-dependent delays*, SIAM J. Numer. Anal., 23 (2025), pp. 2296–2316, doi: 10.1137/24M1711182.
11. A. Andò, E. Bozzo, F. Fontana, *Non-iterative numerical simulation in virtual analog: a framework incorporating current trends*, Proceedings of DAFx (2025), pp. 118–125.
10. A. Andò, R. Vermiglio, *Exponential time integration for delay differential equations via pseudospectral discretization*, IFAC-PapersOnLine 58:27 (2024), pp. 190–195 doi: 10.1016/j.ifacol.2024.10.322
9. A. Andò, R. Vermiglio, *Exponential Runge-Kutta methods for delay equations in the sun-star abstract framework*, Discrete Contin. Dyn. Syst. Ser. B 30:6 (2024), pp. 1842–1858. doi: 10.3934/dcdsb.2024139.
8. A. Andò, R. Edwards, N. Guglielmi, *Nonuniqueness phenomena in discontinuous dynamical systems and their regularizations*, SIAM J. Appl. Dyn. Syst. 23:2 (2024). doi: 10.1137/23M1587488.
7. A. Andò, D. Breda, *Piecewise orthogonal collocation for computing periodic solutions of coupled delay equations*, App. Numer. Math., 200 (2024), pp. 58–79 doi: 10.1016/j.apnum.2023.05.010.
6. A. Andò, D. Breda, *Piecewise orthogonal collocation for computing periodic solutions of renewal equations*, Adv. Comput. Math. 49:93 (2023). doi: 10.1007/s10444-023-10094-4.
5. A. Andò, S. De Reggi, D. Liessi, F. Scarabel, *A pseudospectral method for investigating the stability of linear population models with two physiological structures*, Math. Biosci. Eng., 20 (2022), pp. 4493–4515, doi: 10.3934/mbe.2023208.
4. A. Andò, *Convergence of collocation methods for solving periodic boundary value problems for renewal equations defined through finite-dimensional boundary conditions*, Comp and Math Methods (2021), e1190, doi: 10.1002/cmm4.1190.

3. A. Andò, D. Breda, *Convergence analysis of collocation methods for computing periodic solutions of retarded functional differential equations*, SIAM J. Numer. Anal., 58 (2020), pp. 3010–3039, doi: 10.1137/19M1295015.
2. A. Andò, D. Breda, G. Gava, *How fast is the linear chain trick? A rigorous analysis in the context of behavioral epidemiology*, Math. Biosci. Eng., 17 (2020), pp. 5059–5084, doi: 10.3934/mbe.2020273.
1. A. Andò, D. Breda, F. Scarabel, *Numerical continuation and delay equations: A novel approach for complex models of structured populations*, Discrete Contin. Dyn. Syst. Ser. S, 13 (2020), pp. 2619–2640, doi: 10.3934/dcdss.2020165.

3.2 Book chapters

2. A. Andò, D. Breda, D. Liessi, S. Maset, F. Scarabel, R. Vermiglio, *15 years or so of pseudospectral collocation methods for stability and bifurcation of delay equations*, in G. Valmorbida, W. Michiels and P. Pepe, eds., Accounting for Constraints in Delay Systems, Adv. Delays Dyn., Springer, Cham (2022), pp. 127–149, doi: 10.1007/978-3-030-89014-8_7.
1. A. Andò, D. Breda, *Collocation techniques for structured populations modeled by delay equations*, in M. Aguiar, C. Braumann, B. W. Kooi, A. Pugliese, N. Stollenwerk and E. Venturino, eds., Current Trends in Dynamical Systems in Biology and Natural Sciences, SEMA SIMAI Springer Ser. 21, Springer, Cham (2020), pp. 43–62, doi: 10.1007/978-3-030-41120-6.

3.3 Preprints and submitted manuscripts

2. A. Andò, G. Bosco, D. Breda, D. Liessi *Approximating evolution operators of linear delay equations: a general framework for the convergence analysis*, https://arxiv.org/abs/2512.24964.
1. A. Andò, J. Sieber *Spectral element methods for boundary-value problems of functional differential equations*, https://arxiv.org/abs/2507.20266.

4 Conferences

4.1 Organization of conferences and conference sessions

- 17th workshop DSABNS Dynamical Systems Applied to Biology and Natural Sciences, Granada (ES), 02–06 February 2026, session *Mathematical Advances in Epidemic Modeling with Heterogeneity and Delays*, co-organizer Francesca Scarabel.
- 19th IFAC Workshop on Time Delay Systems, Gif-sur-Yvette (F), 29 June–2 July 2025, session *Advances in Numerical Methods for Delay Equations*, co-organizer Davide Liessi.
- 18th IFAC Workshop on Time Delay Systems, U. Udine (I), 24–27 September 2024, session *Software tools for delay equations*, co-organizer Davide Liessi. Also member of the International program committee and of the Local organising committee for the conference.

4.2 Talks

28. 02–06/02/2026. **Behavior-induced oscillations in epidemic outbreaks with distributed memory: beyond the linear chain trick using numerical methods**, talk at 17th workshop DSABNS Dynamical Systems Applied to Biology and Natural Sciences, Granada (ES).
27. 22–26/09/2025. **Pseudospectral approximation of Floquet multipliers for state-dependent delay differential equations,** invited talk at session *Fast and efficient numerical approximation of evolutionary problems,* 5th YAMC – Young Applied Mathematicians Conference, Padova (I).
26. 01–05/09/2025. **Spectral Element Methods for Boundary-value Problems of Functional Differential Equations,** invited talk at session *Numerical Modeling for Sustainability,* SIMAI 2025 conference, Trieste (I).

25. 02–05/09/2025. **Non-Iterative Simulation: A Numerical Analysis Viewpoint,** tutorial at DAFx25 – 28th International Conference on Digital Audio Effects, Ancona (I).

24. 24–25/07/2025. **Boundary-value problems of functional differential equations with state-dependent delays,** invited talk at Destiny meeting 2025, L'Aquila (I).

23. 09–11/07/2025. **Boundary-value problems of functional differential equations with state-dependent delays,** invited talk at session *Mathematical models in population dynamics,* MME&HB 27th International Congress Mathematical Modelling in Engineering & Human Behaviour, Valencia (ES).

22. 29/06/2025–02/07/2025. **Collocation methods for periodic boundary value problems of state-dependent delay differential equations,** talk at session *Advances in Control and Modeling,* IFAC TDS 2025 19th IFAC Workshop on Time Delay Systems, Gif-sur-Yvette (F).

21. 25–27/09/2024. **Exponential time integration for delay differential equations via pseudospectral discretization,** invited talk at session *Recent advances in the numerical treatment of time delay systems,* IFAC TDS 2024 18th IFAC Workshop on Time Delay Systems, Udine (I).

20. 29/07/2024–02/08/2024. **Collocation methods for periodic boundary value problems of state-dependent delay differential equations,** invited talk at Minisymposium *Current topics in delay equations,* Dynamic Days Europe, Bremen (D).

19. 27–29/01/2024. **Metodi di integrazione esponenziali per equazioni funzionali con ritardo,** at workshop Integrated Mathematical approaches to Socio-Epidemiological Dynamics, Trento (I).

18. 04–09/09/2023. **Numerical computation of periodic solutions of renewal and delay differential equations,** invited talk at Minisymposium *S10: Sistemi dinamici e metodi numerici per le equazioni differenziali,* XXII UMI Conference, Pisa (I).

17. 18–19/05/2023. **Numerical investigation of the stability of two-structured linear population models: the method,** at Workshop MSE - Modellistica Socio-Epidemiologica, Napoli (I).

16. 27–30/09/2022. **On the numerical computation of periodic solutions of renewal and delay differential equations,** invited talk at Minisymposium *Numerical methods for time delay systems* IFAC TDS 2022 17th IFAC Workshop on Time Delay Systems, Montréal (CA).

15. 25–29/07/2022. **On the computation of periodic solutions of delay equations through piecewise orthogonal collocation,** invited talk at Minisymposium *Numerical Advances in Differential Equations* SciCADE 2022 International Conference on Scientific Computation and Differential Equations , University of Iceland, Reykjavík (IS).

14. 05–08/07/2022. **Convergence of the piecewise orthogonal collocation for periodic solutions of delay equations,** invited talk at Minisymposium *Numerical Advances in Differential Equations* FAATNA 20>22 Functional Analysis, Approximation Theory and Numerical Analysis, Matera (I).

13. 27–29/06/2022. Invited talk **Continuazione numerica di orbite periodiche di sistemi con ritardo e applicazioni,** Convegno del Gruppo Nazionale di Calcolo Scientifico, Montecatini Terme (I).

12. 07–10/06/2022. **Numerical investigation of the stability of two-structured linear population models,** eleventh Strucutral Dynamical Systems: Computational Aspects (SDS 2022) meeting, Rosa Marina (I).

11. 26–27/05/2022. **Convergence of the piecewise orthogonal collocation for periodic solutions of delay equations,** First UMI meeting of Ph.D. students at 100 UMI - 800 UniPD, Padova (I).

10. 07–09/07/2021. **Convergence of the piecewise orthogonal collocation for periodic solutions of retarded functional differential equations,** invited talk at Minisymposium *Recent advances in time numerical integration of evolutive problems* YIC 2021 VI ECCOMAS Young Investigators Conference.

9. 12–15/10/2020. **Pseudospectral methods for the stability of linear periodic delay models**, invited talk at Minisymposium *Young researchers in numerics for evolutionary problems* ADENA 2020 International Conference on Advances in Differential Equations and Numerical Analysis.
8. 01–02/10/2020. Invited talk **Pseudospectral methods for the stability of linear periodic delay models**, Online Delay Days, HasseltUtrechtBerlin.
7. 23–25/01/2020. **Periodicity, delays and numerical methods in biomathematics: a recent account**, STRUCTAPP workshop, L'Aquila (I).
6. 17–21/06/2019. Contributed talk **Convergence analysis of collocation methods for the computation of periodic solutions of delay systems**, 11th QTDE Colloquium on the Qualitative Theory of Differential Equations, Szeged (H).
5. 21–23/11/2018. Contributed talk **Collocation methods for the computation of periodic solutions of complex delay systems**, 2nd DECOD Workshop Delays and Constraints in Distributed Parameter Systems, Toulouse (F).
4. 27–29/08/2018. Invited talk **Collocation methods for the computation of periodic solutions of complex delay systems**, LIAM-IRC-MfPH Symposium - Structured population models: Theory, Numerics and Applications, Toronto (CDN).
3. 28–30/06/2018. Contributed talk **Improving numerical continuation for complex delay models of structured populations**, 14th IFAC Workshop on Time Delay Systems, Budapest (H).
2. 07–09/02/2018. Contributed talk **Improving numerical continuation for complex delay models of structured populations**, 9th workshop DSABNS Dynamical Systems Applied to Biology and Natural Sciences, U. Torino (I).
1. 11–15/09/2017. **Pseudospectral methods for the stability of linear periodic delay models**, invited talk in Minisymposium *Numerics, dynamics and models of delay equations* at SciCADE 2017 International Conference on Scientific Computation and Differential Equations, U. Bath (UK).

4.3 Posters

3. 10–12/04/2019. **Computing periodic solutions for complex models in population dynamics**, Italian-Romanian Colloquium on Differential Equations and Applications, U. Udine (I).
2. 03–06/02/2019. **Computing periodic solutions for complex models in population dynamics**, 10th Workshop DSABNS - Dynamical Systems Applied to Biology and Natural Sciences, U. Naples (I).
1. 23–27/07/2018. **Pseudospectral methods for the stability of periodic solutions of delay equations**, ECMTB - European Conference on Mathematical and Theoretical Biology, Lisbon (P).

5 Visits

5. 03/03/2025–08/03/2025. Visit to Francesca Scarabel, University of Leeds (UK).
   Topic: **Convergence of the solution operators of the pseudospectral approximation of delay equations**.
4. 23/02/2025–28/02/2025. Visit to Jan Sieber, University of Exeter (UK).
   Topic: **Periodic solutions of state-dependent delay differential equations**.
3. 26/05/2024–31/05/2024. Visit to Jan Sieber, University of Exeter (UK).
   Topic: **Periodic solutions of state-dependent delay differential equations**.
2. 15/09/2019–14/11/2019. Visit to Alberto D'Onofrio, iPRI (Dardilly, France).
   Topic: **Models and numerical methods for Behavioral Epidemiology**.
1. 26/08/2018–01/09/2018. Visit to Jianhong Wu, York University (Toronto, Canada).
   Topic: **Structured population models**.

6 Projects

13. Finanziamento GNCS Giovani Ricercatori 2020/2021: **Approssimazione numerica e continuazione di orbite periodiche di sistemi con ritardo e applicazioni alla dinamica di popolazioni**, grant recipient.
12. GNCS 2026: **Modelli e metodi numerici innovativi per l'analisi qualitativa e quantitativa di dinamiche evolutive**, coord. D. Liessi (U. Udine), member.
11. GNCS 2025: **Modellistica numerica e simulazione di sistemi evolutivi complessi**, coord. S. Di Giovacchino (U. L'Aquila), member.
10. **MONDI – Modellistica numerica e data-driven per linnovazione sostenibile** (U. Udine, MUR DM 737, NextGeneration EU, CUP G25F21003390007), principal investigator Dimitri Breda (U. Udine), member.
9. GNCS 2024: **Analisi numerica di problemi di evoluzione complessi: stabilità, conservazione e tecniche data-driven**, coord. C. Scalone (U. L'Aquila), member.
8. PRIN 2022 (No. 20229P2HEA): **Stochastic numerical modelling for sustainable innovation**, (Unit of Udine, CUP: 53C24000710006), principal investigator Dimitri Breda (U. Udine), member.
7. PRIN 2020 (No. 2020JLWP23): **Integrated Mathematical Approaches to Socio-Epidemiological Dynamics**, (Unit of Udine, CUP: G25F22000430006), principal investigator Andrea Tosin (U. Torino), member.
6. GNCS 2023: **Sistemi dinamici e modelli di evoluzione: tecniche funzionali, analisi qualitativa e metodi numerici**, coord. F. V. Difonzo (U. Bari), member.
5. GNCS 2020: **Analisi numerica di sistemi evolutivi complessi**, coord. D. Breda (DMIF, U. Udine), member.
4. GNCS 2019: **Problemi di evoluzione e loro discretizzazione: questioni di stabilità lineare e non lineare**, coord. R. D'Ambrosio (U. L'Aquila), member.
3. GNCS 2018: **Approssimazione numerica di problemi di evoluzione: aspetti deterministici e stocastici**, coord. R. D'Ambrosio (U. L'Aquila), member.
2. PRID 2017: **Sistemi Dinamici e Applicazioni**, coord. F. Zanolin (DMIF, U. Udine), member.
1. GNCS 2017: **Analisi e sviluppo di metodologie numeriche per certi tipi non classici di sistemi dinamici**, coord. S. Maset (U. Trieste), member.

7 Seminars

6. 27/02/2025. **A pseudospectral method for investigating the stability of linear population models with two physiological structures**, Department of Mathematics and Statistics, U. Exeter (UK).
5. 29/05/2024. **Nonuniqueness phenomena in discontinuous dynamical systems and their regularizations**, Department of Mathematics and Statistics, U. Exeter (UK).
4. 13/01/2022. **Limit solution of regularized piecewise-smooth dynamical systems**, Computational Dynamics Laboratory (CDLab), U. Udine.
3. 07/01/2021. **Periodic boundary value problems for renewal equations defined through finite-dimensional boundary conditions**, Computational Dynamics Laboratory (CDLab), U. Udine.
2. 22/02/2019. **Two BVP formulations for periodic solutions of DDEs**, Computational Dynamics Laboratory (CDLab), U. Udine.
1. 23/02/2018. **Collocation methods for complex delay models of structured populations**, Computational Dynamics Laboratory (CDLab), U. Udine.

7.1 Organization of seminars and courses

5. 15/12/2025–19/12/2025 **Continuation methods for nonlinear problems**, 14-hours Ph.D. course by Jan Sieber, U. Exeter (UK) at U. Udine (I)
4. 10/10/2025 **A study on deterministic chaos with application to the Mackey-Glass equation**, seminar by MSc student Davide Di Lenarda at U. Udine (I)
3. 11/06/2025 **Period three implies chaos**, seminar by MSc student Davide Di Lenarda at U. Udine (I)
2. 01/04/2025 **A general kinetic model for the spread of infectious diseases in continuously structured compartments**, seminar by Mattia Sensi, U. Trento (I) at U. Udine (I)
1. 14/03/2025 **On discretizing monodromy operators of state-dependent delay differential equations**, seminar by MSc student Cristian Tanase at U. Udine (I)

8 Teaching

8.1 Advanced teaching

5. 11/2025. ***Numerical analysis of periodic boundary value problems for differential equations***, PhD in Mathematics, U. Salerno, 12 hours.
4. 03/2025. ***Software tools for Mathematics***, module on **Python**, SUPE, U. Udine, 6 hours.
3. 07/2024. ***Exponential integration methods***, PhD in Computer Science, Mathematics and Physics, U. Udine, 3 hours.
2. 11/2023. **Laboratory sessions** for the advanced course ***Delays and structures in dynamical systems: Modeling, analysis and numerical methods*** in collaboration with Davide Liessi and Tedi Ramaj, CISM – International Centre for Mechanical Sciences, Udine, 5 hours.
1. 04–05/2021. ***Dynamical systems***, SUPE and PhD in Computer Science, Mathematics and Physics, U. Udine, 2 hours.

8.2 Other courses

15. 09/2025–06/2026. ***Mathematical Analysis***, BSc in Computer Sciences, U. Udine, 40 hours. **Teaching assistant**.
14. 09/2025–06/2026. ***Mathematics***, BSc in Architectural Sciences, U. Udine, 16 hours. **Teaching assistant**.
13. 03/2026. ***Applied Mathematics***, Teacher Training Programme for Secondary Education (Percorso Formativo Abilitante 36–60 CFU, D.P.C.M. 04/08/2023), U. Udine, 12 hours. **Course coordinator**.
12. 09/2024–06/2025. ***Mathematics***, BSc in Architectural Sciences, U. Udine, 16 hours. **Teaching assistant**.
11. 03–06/2025. ***Mathematics***, BSc in Architectural Sciences, U. Udine, 40 hours. **Course coordinator**.
10. 04/2025. ***Applied Mathematics***, Teacher Training Programme for Secondary Education (Percorso Formativo Abilitante 36–60 CFU, D.P.C.M. 04/08/2023), U. Udine, 12 hours. **Course coordinator**.
9. 03–06/2024. ***Mathematics***, BSc in Architectural Sciences, U. Udine, 40 hours. **Course coordinator**.
8. 08/2024. ***Applied Mathematics***, Teacher Training Programme for Secondary Education (Percorso Formativo Abilitante 36–60 CFU, D.P.C.M. 04/08/2023), U. Udine, 12 hours. **Course coordinator**.

7. 03–06/2021. ***Mathematical Analysis II***, BSc in Industrial Engineering for Environmental Sustainability, U. Udine, 25 hours. **Teaching assistant**.
6. 12/2019–08/2020. **High school teacher of *Mathematics and Physics***, I.S.I.S. Paschini-Linussio, Tolmezzo (I).
5. 03–05/2019. ***Introduction to MATLAB***, complimentary course for BSc and MSc in Engineering, U. Udine, 20 hours. **Teaching assistant and co-organizer**.
4. 03–05/2019. ***Scientific computing***, BSc in Computer science, U. Udine, 8 hours. **Teaching assistant**.
3. 10–12/2018. **Introduction to MATLAB for *Approximation theory and methods***, MSc in Mathematics, U. Udine, 6 hours. **Teaching assistant**.
2. 10–12/2017. ***Scientific computing***, BSc in Computer science, U. Udine, 8 hours. **Teaching assistant**.
1. 10–12/2017. **Introduction to MATLAB for *Approximation theory and methods***, MSc in Mathematics, U. Udine, 8 hours. **Teaching assistant**.

8.3 Thesis supervision

- Davide Di Lenarda, *A study on deterministic chaos with application to the Mackey-Glass equation*, MSc in Mathematics, 2025, U. Udine (I), co-advisor (advisor Dimitri Breda).
- Cristian Tanase, *On discretizing monodromy operators of state-dependent delay differential equations*, MSc in Mathematics, 2025, U. Udine (I), co-advisor (advisor Dimitri Breda, co-advisor Davide Liessi).

9 Other

– 12/2025–04/2026. Co-Instructor, Outreach Course on **Deterministic Chaos**, Piano Lauree Scientifiche (PLS), Italy. Co-led a 10-hour course for a final-year secondary school class (17 students), introducing core concepts of nonlinear dynamics through interactive lectures and computational examples.

– 07/2021. Recipient of postdoctoral Grant from **GNCS – Gruppo Nazionale per il Calcolo Scientifico** `https://www.altamatematica.it/gncs/`. Needed to decline due to incompatibility with postdoctoral position at **GSSI – Gran Sasso Science Institute**.

– 10/2021. Recipient of **Ph.D. Award** from U. Udine, given each year to the best six theses in all areas of study.

– 12/2017–present. Member of **CDLab – Computational Dynamics Laboratory** `http://cdlab.uniud.it/` (DMIF, U. Udine).

– 01/2017–present. Member of **GNCS – Gruppo Nazionale per il Calcolo Scientifico** `https://www.altamatematica.it/gncs/`.

– 11/2019–07/2020. Percorso formativo 24 CFU (D.M.616/2017), U. Udine (I), courses: Pedagogia speciale (L. Cottini), Didattica dell'inclusione (D. Fedeli), Psicologia generale (A. Marini), Psicologia dello sviluppo e dell'educazione (C. Urgesi).

– Programming oriented to Numerical Analysis: skills in **MATLAB**/**Octave** acquired during MSc and PhD courses, skills in **Python** acquired during the Master in HPC.

– Other programming experience: **C**, **C++**, parallel programming with **OpenMP**, **MPI**, **CUDA**.

9.1 Language skills

Italian	Native
English	**C2** (Cambridge 2023)
French	B2 (DELF 2024)
Spanish	B2 (DELE 2025)
German	B1
Danish	Basic reading and writing
Dutch	Basic reading and writing