

# Andrea Volpi

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Homepage

ORCID

## Personal information

**Date of birth:** January 23, 1996

**Place of birth:** Brescia, Italy

**Languages:** Italian (native), English (fluent), German (B1)

## Research interest

Reverse mathematics; Computability theory; Ramsey theory; Ordinal analysis

## Education

<b>Ph.D. student:</b> Mathematics, University of Udine, Italy (supervisor: prof. Alberto Marcone)	from Nov 2022 (expected graduation Mar 2026)
Visiting scholar at UConn, Storrs, Connecticut, US (hosts: prof. Damir Dzhafarov, prof. Reed Solomon)	Jan 2023 to Apr 2023
Visiting scholar at NUS, Singapore (host: dr. Jun Le Goh)	Sep 2025 to Oct 2025
<b>M.Sc.:</b> Mathematics (L40), University of Trento, Italy	Jan 2019 to May 2021
<b>B.Sc.:</b> Mathematics (L35), University of Trento, Italy	Aug 2015 to Nov 2018

## Graduate schools

Summer School on Proof Theory	Ghent, Belgium Sep 2025 1 week
Reverse mathematics: new paradigms ESI	Vienna, Austria Jul 2025 to Aug 2025 1 week
IMS graduate summer school in logic	Singapore Jun 2023 to Jul 2023 3 weeks
Computability and combinatorics summer school 2023	Hartford, Connecticut May 2023 1 week
Discrete mathematics and logic: between mathematics and the computer science	Marseille, France Jan 2023 1 week
AILA logic summer school	Gargnano, Italy Aug 2022 1 week

## Teaching experience

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**Teaching assistant**, University of Udine, Italy:

- Geometry I, B.Sc. in mathematics, Sep 2024 to May 2025
- Linear algebra, B.Sc. in engineering, Sep 2024 to Dec 2024
- Calculus I, B.Sc. in mathematics, Nov 2023 to Dec 2023
- Calculus I, B.Sc. in informatics, Sep 2023 to Oct 2023
- Calculus I, B.Sc. in informatics and IBML, Jan 2023 to Sep 2023

**Teaching assistant**, University of Trento, Italy:

- Geometry and linear algebra, B.Sc. in engineering, Sep 2020 to Dec 2020
- Geometry and linear algebra, B.Sc. in engineering, Jan 2020 to May 2020
- Geometry I, B.Sc. in mathematics, Sep 2019 to Dec 2019
- Geometry and linear algebra, B.Sc. in engineering, Jan 2019 to May 2019

## Publications and ongoing research

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- [1] **Effectiveness and strong graph indivisibility**, joint with Damir Dzhamfarov and Reed Solomon, <https://arxiv.org/abs/2411.16950> (submitted)
- [2] **The barrier Ramsey theorem**, joint with Alberto Marcone and Antonio Montalbán, <https://arxiv.org/abs/2505.02544> (submitted)
- [3] **Reverse mathematics and dimension of posets**, joint with Marta Fiori Carones and Alberto Marcone, (work in progress)
- [4] **The strength of Ramsey theorem for  $\alpha$ -large sets**, joint with Lorenzo Carlucci and Konrad Zdanowski, (work in progress)
- [5] **Classification of ultrahomogeneous graphs and posets**, joint with Jun Le Goh, (work in progress)

## Conferences attended

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<b>Workshop on Proof Theory</b> Ghent, Belgium	Sep 4-5, 2025
<b>Computability in Europe 2025</b> Lisbon, Portugal	Jul 14-18, 2025
<b>Reverse mathematics ESI</b> Vienna, Austria	23 Jun-29 Aug, 2025
<b>Weihrauch Complexity: Structuring the Realm of Non-Computability</b> Schloss Dagstuhl, Germany	Mar 23-28, 2025
<b>XXVIII AILA logic meeting 2024</b> Udine, Italy	Sep 3-6, 2024
<b>Models, sets and classifications PRIN meeting 2024</b> Udine, Italy	Sep 2, 2024
<b>Leeds computability days 2024</b> Leeds, UK	Jul 2-5, 2024
<b>Logic colloquium 2024</b> Gothenburg, Sweden	Jun 24-28, 2024
<b>RaTLoCC</b> Pisa, Italy	Jun 11-14, 2024
<b>Computability and combinatorics conference 2023</b> Hartford, Connecticut	May 19-21, 2023

## Selected talks

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<b>Sapienza LOC3 seminar</b> University La Sapienza, Roma (Invited) Presentation title: Effectiveness and strong graph indivisibility	Nov 7, 2025
<b>Singapore logic seminar</b> National University of Singapore, Singapore (Invited) Presentation title: Effectiveness and strong graph indivisibility	Sep 17, 2025
<b>Proof society 2025</b> University of Ghent, Belgium Presentation title: The barrier Ramsey theorem <i>Winner of the best student presentation award of Proof Society 2025</i>	Sep 4, 2025
<b>Computability in europe 2025</b> University of Lisbon, Portugal Presentation title: The strength of Ramsey theorem for $\alpha$ -large sets	Jul 18, 2025
<b>Logic working group</b> University of Udine, Italy Presentation title: Effectiveness and strong graph indivisibility	Feb 21, 2025
<b>XXVIII AILA logic meeting 2024</b> University of Udine, Italy Presentation title: Reverse mathematics and dimension of posets	Sep 5, 2024
<b>Models, sets and classifications PRIN meeting</b> University of Udine, Italy Presentation title: Classifying the pigeonhole property	Sep 2, 2024
<b>Logic colloquium 2024</b> University of Gothenburg, Sweden Presentation title: Largeness notions	Jun 26, 2024
<b>Logic working group</b> University of Udine, Italy Presentation title: Transfinite Ramsey theorem	Jun 14-21, 2024
<b>Connecticut logic seminar</b> UConn, Storrs, Connecticut, US (Invited) Presentation title: Reverse mathematics and dimension of posets	Feb 20, 2024
<b>Computability seminar</b> CUNY graduate center, New York, US (Invited) Presentation title: Largeness notions	Feb 16, 2024
<b>Logic working group</b> University of Udine, Italy Presentation title: Reverse mathematics and dimension of posets	May 12, 2023

## Organizing activities

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<b>World logic day</b> "Le macchine di Turing" University of Udine, Italy Local organizing committee	Jan 14, 2025
<b>XXVIII AILA logic meeting</b> University of Udine, Italy Local organizing committee	3-6 Sep, 2024
<b>World logic day</b> "Contare l'infinito" University of Udine, Italy Local organizing committee	Jan 13, 2023
<b>Logic working group</b> "Sets and computability in Udine", University of Udine, Italy Website management	Dec 2022 to Oct 2025

## Memberships

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**Proof Society**

**CiE** Computability in Europe

**AILA** Associazione italiana di logica e sue applicazioni

**UMI** Unione matematica italiana

**ASL** Association for symbolic logic

## Awards and grants

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**Proof Society 2025**, Ghent, Belgium: Best student presentation award (EUR 1000)

**ASL Student travel grant 2025**, Ghent, Belgium: Proof Society 2025 (USD 250)

**ASL Student travel grant 2024**, Gothenburg, Sweden: Logic Colloquium 2024 (EUR 300)

**Bando di mobilità 2023-2024**, Udine, Italy: Research visit to UConn (EUR 1500)