

# Artem Semidetnov

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## Education

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**BS**    **Saint-Petersburg State University**, Mathematics    2021 – 2025

## Publications

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**On the geometry of free nilpotent groups**    May 2021

**Artem Semidetnov**, Ruslan Magdiev

<https://doi.org/10.48550/arXiv.2106.00095> [↗](#)

## Awards and Scholarships

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Scholarship by "Rodnye Goroda" (a social investment program of PJSC "Gazprom нефт")

## Teaching Experience

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**Sirius educational center**, Teaching assistant on the course "Groups of intermediate growth" [↗](#)    Sochi, Russia  
Apr 2024 – May 2024

**Laboratory for continuous mathematical education**, teacher    2021 – 2023

## Work Experience

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**JetBrains**, Research Intern in HoTT and Dependent Types Lab    Pafos, Cyprus  
June 2024 – Sept 2024

- I was developing the official library in the Arend language. I formalized different results in algebra and homotopy type theory, including following.
- Formalized Eckmann-Hilton argument, Eilenberg-MacLane spaces, Homologies of types.
- Formalized automorphisms of groups, Schur's Lemma, Maschke's Lemma, Group actions characterizations. (Some of these results are in the [1.10 release](#) [↗](#))

**IPONWEB (acquired by Criteo)**, Machine Learning Intern    Pafos, Cyprus  
May 2023 – Sept 2023

- Criteo has a ML tool that analyzes sites and produces word-2-vec representations. In IPONWEB I was trying to reverse-engineer the behaviour of this tool and analyze its possible applications.