Artane Jérémie Siad

Education

2016 – 2021	**University of Toronto, Canada**, PhD (Supervisor: Prof. Arul Shankar), Mathematics
2015 – 2016	**Cambridge University, England**, MASt, Mathematics
2010 – 2014	**University of Waterloo, Canada**, BMath, Pure Mathematics

Appointments

2021 – now	**Institute for Advanced Study**, Member (2022, current) & Visitor (2021, 2023)
2021 – now	**Princeton University**, Instructor (3 years) & Visiting Fellow (current)
2022 – 2024	**Natural Sciences and Engineering Research Council of Canada**, Postdoctoral Fellow

Major Scholarships and Grants

2022 – 2024	**Natural Sciences and Engineering Research Council of Canada Postdoctoral Fellowship**
2020 – 2021	**Queen Elizabeth II/Steve Halperin Graduate Scholarship in Science and Technology**
2019 – 2020	**University Wide Award – McCuaig–Throop Bursary,** University of Toronto
2019 – 2020	**Ontario Graduate Scholarship**
2018 – 2019	**Ontario Graduate Scholarship**
2017 – 2018	**Ontario Graduate Scholarship**
2015 – 2016	**NSERC CGS–M,** University of British Columbia (declined)

Publications

2023	**Counting integral points on symmetric varieties with applications to arithmetic statistics** Proceedings of the London Mathematical Society, accepted pending revisions (Shankar-Siad-Swaminathan)
2021	**Geometry-of-numbers methods in the cusp** Algebra and Number Theory, to appear (Shankar-Siad-Swaminathan-Varma)

Preprints

2024	**Entropy of Cohen-Lenstra measures: the u-aspect** available upon request, (Siad)
2024	**Spin structures, biextensions and class groups** available upon request, (Siad-Venkatesh)
2022	**Global fields with odd relative class numbers: ordinary, narrow, and oriented** in preparation (Siad)

2020	**Monogenic fields with odd class number Part II: even degree**
	[arXiv](), submitted (Siad)
2020	**Effect of monogenicity on 2-torsion in the class group of number fields of odd degree**
	[arXiv](), submitted (Siad)

Professional Activities and Educational Outreach

Organising:

- Joint PU/IAS Number Theory Seminar (Princeton, 2022 - now)

- Van der Waerden Conjecture Reading Seminar (Princeton, 2022)

- Learning seminar on the Fargues-Fontaine curve (Toronto, Summer 2021)

Non-research mentoring: high school student Zimbabwe (2024)

Referee: Memoirs of the American Mathematical Society, Journal of the London Mathematical Society, Journal de Théorie des Nombres de Bordeaux, Forum of Mathematics Sigma, American Journal of Mathematics, Transactions of the American Mathematical Society.

Outreach:

- Guest of Honour, Pan African Mathematics Olympiad, Johannesburg, South Africa (August 2024)

Teaching

2024	*Multivariable Calculus*, Preceptor, Fall term, Princeton University
2023	*Multivariable Calculus*, Lecturer, Fall term, Princeton University
2022	*MAT202 Linear Algebra with Applications*, Lecturer, Winter term, Princeton University
2021	*MAT201 Multivariable Calculus*, Lecturer, Fall term, Princeton University
2021	*MAT235 Calculus II*, Lecturer, Summer term, University of Toronto
2021	*APM236 Applications of Linear Programming*, Lecturer, Winter term, University of Toronto
2020	*MAT235 Calculus II*, Lecturer, Summer term, University of Toronto
2019	*MAT135 Introduction to Calculus*, Lecturer, Fall term, University of Toronto
2019	*MAT235 Calculus II*, Lecturer, Summer term, University of Toronto
2021	*MAT315 Introduction to Number Theory*, Teaching Assistant, Winter term, University of Toronto
2020	*MAT415 Algebraic Number Theory*, Teaching Assistant, Fall term, University of Toronto
2020	*MAT315 Introduction to Number Theory*, Teaching Assistant, Fall term, University of Toronto
2020	*MAT136 Introduction to Calculus*, Head Teaching Assistant, Winter term, University of Toronto
2020	*MAT235 Calculus II*, Teaching Assistant, Winter term, University of Toronto
2020	*APM346 Partial Differential Equations*, Teaching Assistant, Winter term, University of Toronto
2019	*MAT235 Calculus II*, Teaching Assistant, Fall term, University of Toronto
2019	*MAT237 Multivariable Calculus*, Teaching Assistant, Winter term, University of Toronto

2018	*MAT235 Calculus II* (double assignment), Teaching Assistant, Fall term, University of Toronto
2018	*MAT237 Multivariable Calculus*, Teaching Assistant, Fall term, University of Toronto
2018	*MAT224 Linear Algebra II*, Teaching Assistant, Fall term, University of Toronto
2018	*MAT235 Calculus II*, Teaching Assistant, Winter term, University of Toronto
2017	*MAT271 Insights from Mathematics*, Teaching Assistant, Fall term, University of Toronto
2017	*MAT223 Linear Algebra*, Teaching Assistant, Fall term, University of Toronto
2017	*MAT235 Calculus II*, Teaching Assistant, Fall term, University of Toronto
2017	*MAT224 Linear Algebra II*, Teaching Assistant, Winter term, University of Toronto
2017	*MAT235 Calculus II*, Teaching Assistant, Winter term, University of Toronto
2016	*MAT223 Linear Algebra*, Teaching Assistant, Fall term, University of Toronto
2016	*MAT235 Calculus II*, Teaching Assistant, Fall term, University of Toronto

LECTURE SERIES

August 2024	3 lectures at the Morningside Center of Mathematics, Chinese Academy of Sciences, Beijing

INVITED RESEARCH TALKS

October 2024	Number Theory Seminar, Harvard University
September 2024	Yau Mathematical Sciences Center, Tsinghua University
August 2024	Institute for Advanced Study, Tsinghua University
August 2024	University of the Witwatersrand Johannesburg
June 2024	Canadian Number Theory Association XVI, Fields Institute
April 2024	Number Theory Seminar, Northwestern University
April 2024	ICMS Workshop: Gauge Fields in Arithmetic, Topology and Physics
January 2024	GLNT seminar, University of Michigan
December 2023	Palmetto Number Theory Series PANTS XXXVII, University of Georgia
November 2023	Algebra, Geometry, and Number Theory Seminar, University of South Carolina
April 2023	Number Theory Seminar, Rutgers University
April 2023	AMS Spring Central Sectional Meeting, University of Cincinnati
January 2023	Spring Opportunities Workshop, Institute for Advanced Study
January 2023	Joint Mathematics Meetings, Boston
August 2022	Simons Symposium on Geometry of Arithmetic Statistics, Schloss Elmau
November 2021	Number Theory Seminar, IAS/Princeton University
October 2021	Number Theory Seminar, University of British Columbia
July 2021	Workshop on Arithmetic Statistics Problems
May 2021	Debrecen Meeting on Monogenity and Power Integral Bases
October 2020	Number Theory/Representation Theory Seminar, University of Wisconsin-Madison
February 2020	Number/Representation Theory Seminar, University of Toronto

Languages

French (NATIVE), **English** (NATIVE OR BILINGUAL PROFICIENCY)

Other Activities and Skills

Skills: Magma, Sage, Python