

KYLE YATES

School of Mathematical and Statistical Sciences, Clemson University
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Education

in progress	Ph.D. Mathematical Sciences, Clemson University (advisor: Shuhong Gao)
2022	M.S. Mathematical Sciences, Clemson University
2020	B.S. Applied Mathematics, San Diego State University

Teaching Positions

2021–present	Graduate Teacher of Record, Clemson University
2020–2023	Graduate Teaching Assistant, Clemson University
2017–2020	Undergraduate Teaching Assistant, San Diego State University

Research Positions

2022 Summer	Graduate Research Assistant, Clemson REU in Cryptography
2021 Summer	Graduate Research Assistant, Clemson REU in Cryptography

Research Interests

Cryptography, Homomorphic Encryption, Post-Quantum Cryptography, Learning With Errors

Works

2022	Efficiency of Homomorphic Encryption Schemes (Thesis)
in progress	A Novel ZK Argument for Matrix Multiplication (with J. Bennett, S. Gao, H. Handley, M. Jones, A. Lindroth, and E. Sundberg)
in progress	Improvements in Leveled Homomorphic Encryption Schemes (with S. Gao)

Teaching Experience

Courses Taught at Clemson University (Instructor of Record)

2024 Spring	Calculus of One Variable II (MATH 1080)
2023 Fall	Calculus of One Variable I (MATH 1060, RISE section)
2023 Spring	Calculus of One Variable I (MATH 1060)
2022 Fall	Business Calculus I (MATH 1020)
2022 Spring	Business Calculus I (MATH 1020)
2021 Fall	Business Calculus I (MATH 1020)

Courses TA'd at Clemson University

2023 Summer	Differential and Integral Calculus (MATH 1070)
2021 Summer	Introduction to Ordinary Differential Equations (MATH 2080)
2021 Spring	Introduction to Ordinary Differential Equations (MATH 2080)
2020 Fall	Calculus of Several Variables (MATH 2060)

Courses TA'd at San Diego State University

2020 Spring	Elementary Differential Equations (MATH 337)
2019 Fall	Elementary Differential Equations (MATH 337)
2019 Spring	Elementary Differential Equations (MATH 337)
2018 Fall	Elementary Differential Equations (MATH 337)
2017 Fall	Precalculus (MATH 141)

Organizations, Committees, and Leadership

Graduate Student Organizations (Clemson)

2023–present	SMSS Graduate Student Advisory Council (Chair)
2023–present	Clemson Graduate Student Government (Senator)
2023–present	Rules and Procedures Committee, Clemson Graduate Student Government
2022–2023	SMSS Graduate Student Advisory Council (Secretary)

Undergraduate Organizations (San Diego State)

2019–2020	Phi Mu Alpha Sinfonia Fraternity (President)
2018–2020	Staff and Student Leadership Team, San Diego State Marching Aztecs
2018–2019	Phi Mu Alpha Sinfonia Fraternity (Vice President)
2017–2018	Phi Mu Alpha Sinfonia Fraternity (Treasurer)

Presentations

2023 Fall	Clemson Graduate Student Seminar. <i>Homomorphic Encryption and Confidential Computing.</i>
2023 Spring	Clemson Graduate Student Seminar. <i>Homomorphic Encryption and Confidential Computing.</i>
2022 Spring	Clemson Mathematics REU. <i>Introduction to Homomorphic Encryption.</i>
2020 Spring	SDSU Student Research Symposium. <i>Ball-collision Decoding Analysis for Linear Codes in the McEliece Cryptosystem.</i>

Conferences and Workshops Attended

2024 January	DECAL Workshop on Data Security and Machine Learning in Industry
2023 October	Palmetto Number Theory Series XXXVI
2023 March	Amazon Web Services Immersion Day Workshop
2022 March	BIRS-CMO Workshop, Algebraic Methods in Coding Theory
2021 July	Mathematics REU Conference at Clemson University
2021 July	3rd Post-Quantum Cryptography Standardization Conference

Honors and Awards

Graduate Student Advisory Council Leadership Service and Enhancement Award (Clemson)
Dean's list, College of Sciences (San Diego State, F16, S17, F17, S18, F18, F19, S20)
Associated Students Study Abroad Scholarship (San Diego State)
Weber Honors College member (San Diego State)

Software Proficiencies

LaTeX, Magma Computational Algebra, Maple, MATLAB, Python, Excel