David White

Curriculum Vitae

Department of Mathematics
North Carolina State University
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🌐 `dave-white.github.io` | ⦿ `dave-white (GitHub)`

EDUCATION

2017–present   **Ph.D. (expected spring 2023)**, *North Carolina State University* (NCSU), Raleigh, NC
Mathematics

2007–2011   **B.A. (2011)**, *Duke University*, Durham, NC
Philosophy and Mathematics

RESEARCH INTERESTS

My primary domain of study is low-dimensional topology, drawing from the fields of

- symplectic topology,
- differential topology,
- knot theory,
- gauge theory.

Of particular interest are the applications of Floer homology theory and the Atiyah-Floer conjecture.

PAPERS

David G. White. "Symplectic Instanton Knot Homology". in progress. 2022

TALKS

Mar. 2022   **Symplectic instanton knot homology**, *Pure Math Grad Student Seminar*, NCSU
Presentation of current research to fellow math graduate students.

Mar. 2022   **Introduction to Floer homology**, *Pure Math Grad Student Seminar*, NCSU
Informational presentation to fellow math graduate students.

Feb. 2022   **Symplectic Instanton Knot Homology**, *Indiana University*, Bloomington, IN
Informal presentation and discussion, by invitation.

TEACHING

All courses below were held at North Carolina State University (NCSU).

Primary instructor

Course	Terms
Calculus III - Multivariable calculus	Fall 2019
Topics in Contemporary Mathematics	Summer 2, 2021 & 2019

Recitation leader (teaching assistant)

Course	Terms
Survey of Geometry	Fall 2021
Calculus III - Multivariable calculus	Spring 2021 & 2019
Calculus I - Single-variable calculus	Spring 2020, Fall 2018

SERVICE

Jun. 2021 Led a workshop for fellow graduate students at NCSU (organized by its AMS chapter) on configuration and usage of `vim` plus its `vim-latex` plugin for editing, managing and automating LaTeX projects.

EMPLOYMENT

2017 **Tutor**, *Mathnasium*, Huntersville, NC
Mathematics tutor for K-12 students.

2015–2016 **Associate Software Developer**, *iPipeline, Inc.*, Exton, PA
Front- and backend developer of engine producing prospectus for insurance and other actuarial products.

2011–2013 **Senior Developer**, *BPM Specialists, Inc.*, Atlanta, GA
Pega-certified Senior Developer & Systems Architect. Worked on Java-based business process management (BPM) applications for clients including Wells Fargo and TSYS.

SKILLS

Computing

Mathematical	SymPy, Maple, MATLAB, Mathematica	High-level	C/C++, Java, VisualBasic (.NET)
Scripting	Python, PHP, Javascript, Vimscript, `bash`, `zsh`	Document / Markup	TeX, HTML, CSS, Markdown
System	Linux, MacOS	Version control	Git

Languages

French	Intermediate	*Proficient reader, intermediate to advanced listening comprehension, developing speaker. Some university coursework.*
German	Beginner	*Some university coursework.*