

Paul W. von Dohlen

Email: vondohlenp@wpunj.edu

CURRENT POSITION

William Paterson University

Wayne, NJ

Department of Mathematical Sciences

Department Chair (since 7/1/22)

Professor (since 9/1/20)

Associate Professor (9/1/13 - 8/31/20)

Assistant Professor (9/1/07 - 8/31/13)

Faculty Appointment Date: 9/1/07 (as Assistant Professor)

EDUCATION

Stevens Institute of Technology

Hoboken, NJ

Graduate School of Applied Sciences

Ph.D. - Mathematics - May 2006

Title: *Novel Approaches to Particle-Tracking Simulations for Time-Dependent Velocity Fields*

Advisor: Patrick D. Miller

Columbia University

New York, NY

Graduate School of Engineering and Applied Sciences

M.S. - Applied Mathematics - May 1997

Columbia University

New York, NY

School of Engineering and Applied Science

GPA 3.83/4.00, C. Prescott Davis Scholar, Varsity Track and Field

B.S. - Mechanical Engineering - February 1995

CERTIFICATIONS

IBM Machine Learning Professional Certificate

IBM/Coursera, Completed: 1/22

IBM Data Science Professional Certificate

IBM/Coursera, Completed: 2/21

TEACHING EXPERIENCE

William Paterson University

Department of Mathematical Sciences

Wayne, NJ

Professor (9/20 - Present)

Associate Professor (9/13 - 8/20)

Assistant Professor (9/07 - 9/13)

Adjunct Professor (9/06 - 5/07)

Courses Taught: *Calculus I*, *Calculus II*, *Quantitative Mathematics I (Finite Mathematics)*, *Quantitative Mathematics II (Applied Calculus)*, *Elementary Statistics*, *College Algebra*, *Foundations of Geometry*, *Calculus III*, *Advanced Calculus*, *Numerical Analysis*, *Independent Study (Topics in Real Analysis)*, *Independent Study (Topics in NonEuclidean Geometry)*, *Differential Equations*, *Linear Algebra*, *Mathematics of Machine Learning*

- Developed syllabi, managed courses and held office hours.
- Created all assignments, quizzes and exams.
- Maintained course webpages and/or Blackboard course pages.

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TEACHING EXPERIENCE (CONTINUED)

Stevens Institute of Technology Department of Mathematical Sciences

Hoboken, NJ

Teaching/Research Assistant (8/98 - 5/06)

Calculus I and Calculus II

- Conducted weekly recitation sections.
- Worked with students on a one-to-one basis and in small groups.

Intersession Calculus (Winter 2005)

- Assisted in creation and implementation of a new intersession calculus program.
- Tutored students individually; graded exams.

Summer Euclid Program (Webcampus Pre-Calculus and Calculus I) (Summer 2004)

- Assisted students via phone, email and WebCT system.
- Graded homework and exams; created solutions in LaTeX PDF form.

RESEARCH INTERESTS

Dynamical Systems, Numerical Analysis, Mathematical Simulations,
Mathematics in Sports, Data Science, Mathematics Education

PUBLICATIONS

P. von Dohlen. *Coding and GUI Use in the Teaching of Undergraduate Numerical Analysis* The Electronic Journal of Mathematics & Technology (eJMT), Vol. 14: Iss. 2. 2020.

P. von Dohlen. *Tweaking the NFL's Quarterback Passer Rating for Better Results.* Journal of Quantitative Analysis in Sports, Vol. 7: Iss. 3. 2011.

P. von Dohlen and P. Miller. *An Error-Based Curve Tracking Algorithm for 2-Dimensional Flows.* International Journal of Pure and Applied Mathematics, Vol. 71, No. 2, 2011.

PAPERS UNDER PREPARATION

P. von Dohlen and Max Rohrer. *Using a Numerical Baseball Simulator to Analyze Batting Lineups and Hitter Streakiness*

GRANTS

Champanerkar, J. A., Hill, D. A., Ku, C. S., Liu, W., von Dohlen, P., *Supporting Mathematics and Computer Science scholars through financial support and culturally responsive mentoring (NSF Grant #2028011, 2020-25)*, Sponsored by NSF, Federal, \$1,000,000.00. (October 1, 2020 - September 30, 2025).

PRESENTATIONS

MathFest 2019 (8/19)

Cincinnati, OH

Using a Baseball Simulator to Analyze Batting Orders

MathFest 2018 (8/18)

Denver, CO

Building a Numerical Baseball Simulator

MathFest 2017 (7/17)

Chicago, IL

Coding and GUI Use in the Teaching of Undergraduate Numerical Analysis

William Paterson University Math Fair (11/14)

Wayne, NJ

Funny Face (The Math Midway Exhibit)

PRESENTATIONS (CONTINUED)

BCC STEM Summit (4/14) <i>Tweaking the NFL's Quarterback Passer Rating for Better Results</i>	Paramus, NJ
William Paterson University Math Fair (11/12) <i>Tweaking the NFL's Quarterback Passer Rating for Better Results</i>	Wayne, NJ
William Paterson University Math Fair (11/11) <i>Complex Dynamics: Exploring Chaos</i>	Wayne, NJ
MathFest 2011 (8/11) <i>Tweaking the NFL's Quarterback Passer Rating for Better Results</i>	Lexington, KY
William Paterson University Math Fair (11/10) <i>Triangulations: What Makes a Good Triangle?</i>	Wayne, NJ
NJCU Math Awareness Celebration (4/10) <i>Mathematics of The NFL's Quarterback Passer Rating</i>	Jersey City, NJ
MAA-NJ Spring 2010 Section Meeting (4/10) <i>Mathematics of The NFL's Quarterback Passer Rating</i>	Edison, NJ
Seton Hall Mathematics Lecture Series (3/10) <i>Particle-Tracking Simulations: Evolving Curves and Surfaces in Velocity Fields</i>	South Orange, NJ
AMS/MAA Joint Meetings (1/10) <i>Evolving a Smooth Curve of Initial Conditions Under a Time-Dependent Two-Dimensional ODE</i>	San Francisco, CA
William Paterson University Math Fair (11/09) <i>Mathematics of The NFL's Quarterback Passer Rating</i>	Wayne, NJ
William Paterson University Math Fair (11/08) <i>Computational Mathematics</i>	Wayne, NJ
AMS/MAA Joint Meetings (1/08) <i>Evolving Curves and Surfaces in Time-Dependent Velocity Fields</i>	San Diego, CA
William Paterson University Math Fair (11/07) <i>Mathematical Modeling: Simulating the World</i>	Wayne, NJ

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SERVICE/ACTIVITIES

Department of Mathematical Sciences

Wayne, NJ

William Paterson University

Capstone (Undergraduate Research) Advisor
(Students Advised Since Fall 2007: 53)

Chair of Department of Mathematical Sciences
(Summer 2022 - current)

Assistant to the (Mathematical Sciences) Chair
(Fall 2018 - Summer 2022)

UCC Council

Co-Chair (AY 2021-2022, AY 2022-2023)

Member (AY 2014-15, AY 2015-16, AY 2016-17, AY 2017-18, AY 2018-19, AY 2019-20, AY 2020-21)

Computer Lab Coordinator
(Fall 2008 - Fall 2022)

Mathematics Learning Center Coordinator
(Spring 2019)

Mathematics Department Council

(AY 2013-14, AY 2014-2015, AY 2015-16, AY 2016-17, AY 2017-18, AY 2018-19, AY 2019-21, AY 2021-2022)

Center for Research Advisory Committee (College of Science and Health)
(Fall 2019 - Spring 2020)

Mathematics Undergraduate Curriculum Committee (Chair)

(AY 2008-09, AY 2009-10, AY 2010-11, AY 2011-12, AY 2012-13, AY 2013-14, AY 2017-18, AY 2018-19, AY 2021-2022)

Math 115/116/135 Precalculus Coordinator

(AY 2009-10, AY 2010-11, AY 2011-2012, AY 2012-13, AY 2021-2022)

Mathematics Department Retention/Tenure Committee

(AY 2013-14, AY 2014-15, AY 2015-16)

Mathematics Department Promotion Committee

(AY 2013-14, AY 2017-18)

Member of Faculty Senate Committee on Admissions and Enrollment

(AY 2008-09, AY 2009-10)

Member of College of Science and Health Curriculum Committee

(AY 2009-10, AY 2010-11)

Member of UCC Science and Quantitative Review Panel

(AY 2010-11)

MAA - New Jersey Section

NJ

Member of MAA-NJ Executive Board

(2009 - 2022)

Positions: Past-Chair, Chair, Treasurer, Book Sales Co-Director, Web Manager

MEMBERSHIPS

MAA, SIAM, AMS

MAA SIGMAA on Mathematical Knowledge for Teaching (Charter Member),

MAA SIGMAA on Mathematics and Sports (Charter Member),

TAU BETA PI (Engineering Honor Society)

ADDITIONAL SKILLS

Proficient in Windows, LaTeX, Python, MATLAB, Blackboard Course Management