

Erli Wind-Andersen

New Jersey Institute of Technology

Department of Mathematics Sciences

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EDUCATION Ph.D. Applied Mathematics

Department of Mathematical Sciences, NJIT, Newark, NJ

September 2017- May 2022

Advisors: Peter Petropoulos & Catalin Turc

M.S. Mathematics

Courant Institute, New York University, New York, NY

September 2014- September 2016

Advisor: Georg Stadler

B.S. Mathematics

Fordham University, Bronx, NY

September 2008 - August 2013

Papers

Nyström methods for high-order CQ solutions of the wave equation in two dimensions Peter P. Petropoulos, Catalin Turc, Erli Wind-Andersen. <https://arxiv.org/abs/2111.06829>

RESEARCH

1. *High Accuracy and Fast Time-Domain Multiple Scattering over Complex Geometries*, 2021 (Ph.D. Thesis).
2. *Proper Orthogonal Decomposition with Compressed Modes*, 2016 (Masters Thesis).
3. *Stokes Flow with Edge Singularities* , 2016.
4. *Solving a Non-Equilibrium Gas System Modeled by the Diffusion Equation with a Moving Boundary*, 2012. (Undergraduate research project)

COMPUTING

Mathematical software: Matlab, Mathematica, NumPy, SciPy, Octave, Sage.

Languages: Julia, Python, C/C++, LaTex, Bash.

Other Software: Slurm scheduler for cluster computing.

TALKS

The Integral equations of Sound-Soft and Sound-Hard Scattering. New Jersey Institute of Technology Faculty and Student Summer Talks (Summer 2021)

Introduction to Convolution Quadrature. New Jersey Institute of Technology Faculty and Student Summer Talks (Summer 2020)

The Exterior Helmholtz Equation on a Bounded Domain. New Jersey Institute of Technology Faculty and Student Summer Talks (Summer 2019)

A brief Introduction to Singular Kernel Evaluation. New Jersey Institute of Technology Faculty and Student Summer Talks (Summer 2018)

TEACHING

New Jersey Institute of Technology, NJ

Instructor 01/2018-05/2018

Recitation Instructor for MATH-112 Calculus II (Mathematics Department).

New Jersey Institute of Technology, NJ

Instructor 09/2017-12/2017

Recitation Instructor for MATH-110 University Mathematics B II & MATH-111 Calculus I (Mathematics Department).

New York University, NY

Instructor 01/2017-5/2017

Instructor for MATH-UA.0009-001, Algebra And Calculus (Mathematics Department).

Fordham University, NY

Instructor 01/2017-5/2017

1. Instructor for MATH 1109, Math for Business: Calculus, (Mathematics Department).
2. Instructor for CISC 1400, Discrete Structures, (Computer Science Department).

Fordham University, NY

Instructor 09/2016-12/2016

Instructor for MATH 1100, Finite Mathematics.

Teachers Assistant 09/2016-12/2016

Teaching Assistant for MATH 4006, Numerical Analysis, taught by Prof. Michael Volpatto.

New York University, NY

Recitation Instructor 2/2015-5/2015

Employed by the mathematics department as the recitation instructor for Calculus I.

Fordham University, NY

Tutor 9/2012-12/2013

Employed by the Mathematics Department to aid any students in classes they may be struggling with.

Fordham University, NYTeacher's Assistant

9/2013-12/2013

Served as T.A. for Numerical Analysis (MATH 4006) class, taught by Prof. Rolf Ryham. Duties included helping students with computation and any difficulty on assignments.

EXPERIENCE New York University, NYDirector for Courant Splash 2015

Ran a stem high school outreach program (cSplash), managing course offerings, internal and external communications, volunteer coordination.

<http://www.csplash.org/>

New York University, NYLogistics Coordinator for Courant Splash/2015-5/2015

Assisting in the running of a stem high school outreach program (cSplash), managing course offerings, internal and external communications, volunteer coordination.

<http://www.csplash.org/>

Fordham University, NYCoordinating Manager For the AMC-8 09/13-12/2013

Worked as the manager for the Amc-8 math competition for middle school student, managing and proctoring the event itself. Also served as the assistant manager to The Fordham University Math Program for Talented Youth (FUMPTY), a program that offers enrichment courses to mathematically inclined middle school students from the greater NY area and its surrounding tri-state region.

Rush University, ILResearch Assistant 6/2012-7/2013

Worked as the Research assistant to Professor Rolf Ryham, with the research being conducted at Rush University's Biophysics and Physiology department.

ACTIVITIES Dean's Council

Served on the Dean's Council for Fordham College Rose Hill as a representative for the Mathematics department.

REFERENCES 1. Catalin Turc, Associate Professor of Mathematics, turc@cnjit.edu

2. Peter Petropoulos, Associate Professor of Mathematics, peterp@njit.edu.