

# Eric Stachura

## Curriculum Vitae

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### Employment

- August 2018-present **Assistant Professor**, *Kennesaw State University*, Kennesaw, GA.  
July 2016-June 2018 **Visiting Assistant Professor**, *Haverford College*, Haverford, PA.

### Education

- July 2016 **Ph.D in Mathematics**, *Temple University*, Philadelphia, PA.  
Advisor: Cristian E. Gutiérrez  
Spring 2016 **Teaching in Higher Education Certificate**, *Temple University*, Philadelphia, PA.  
Jan 2013 **M.A. in Mathematics**, *Temple University*, Philadelphia, PA.  
2007-2011 **B.S. in Mathematics**, *University of Illinois*, Chicago, IL.  
*Cum Laude and with honors*. Minor: Physics.

### Recent Awards

- American-Scandinavian Foundation Fellow, *2019-2020*
- MAA Project NExT Fellow, *2019-2020*
- SIMIODE MINDE Fellow, *July 2018*

### Recent Publications

- Á. Bényi, J. M. Martell, K. Moen, E. Stachura, and R. Torres, *Boundedness results for commutators with BMO functions via weighted estimates: a comprehensive approach*. Submitted; preprint available at <https://arxiv.org/abs/1710.08515>.
- A. Hunter and E. Stachura, *A quantitative method for choosing optimal Daubechies wavelets*. *Advances in Inequalities and Applications*, Vol. 2018, 12: 2018.
- C. E. Gutiérrez, L. Pallucchini, and E. Stachura, *General Refraction Problems with Phase Discontinuity on non flat Metasurfaces*. *Journal of the Optical Society of America A*, Vol. 34(7): 1160-1172, 2017.
- E. Stachura, *Existence of weak solutions to Refraction Problems in Negative Refractive Index Materials*. *Nonlinear Analysis*, Vol. 157, 76-103, 2017.
- E. Stachura, *The Time Dependent Maxwell System with Measurable Coefficients in Lipschitz Domains*. *Journal of Mathematical Analysis and Applications*, Vol. 452(2), 941-956, 2017.

- C. E. Gutiérrez, E. Stachura, *Metamaterial Lens Design*. Journal of the Optical Society of America A, Vol. 33(10), 2020-2026, 2016.
- C. E. Gutiérrez, E. Stachura, *Uniform Refraction in Negative Refractive Index Materials*. Journal of the Optical Society of America A, Vol. 32 (11), pp. 2110-2122, 2015.
- I. Mitrea, K. Ott, E. Stachura, *Spectral Properties of the Reflection Operator in Two Dimensions*. Contemporary Mathematics, Vol. 581 (2012), pp. 199-215.

## Professional Activities

- KSU Mathematical Association of America Student Chapter Advisor.**
- August 2018-
- March 2018 **Workshop leader at Philadelphia Area Math Teacher's Circle**, Philadelphia, PA.
- September 2017 **Organizer of workshop *Philadelphia Area Density Functional Theory Day***, Haverford College, Haverford, PA.
- May 2017- **Reviewer for *Mathematical Reviews*, *MAA Reviews*, and *Zentralblatt Math*.**
- September 2016 **Optical Society of America Student grant reviewer.**
- 2014-2017 **Organizer, Workshop: Hands on Geometric Optics, STEM Scholars Program at the Franklin Institute**, Philadelphia, PA
- January 2013 **Co-organizer, AMS Special Session in Harmonic Analysis, Partial Differential Equations, and Geometric Measure Theory**, Joint Mathematical Meetings, San Diego, CA

## Some Recent Talks

- May 2019 **Analysis of the Bi-anisotropic Maxwell system**, *URSI Commission B International Symposium on Electromagnetic Theory*, San Diego, CA.
- September 2018 **Boundary Value Problems for the Anisotropic Maxwell system in Lipschitz Domains**, *Kennesaw State University Analysis & Applied Math Seminar*, Marietta, GA.
- November 2017 **On Weak Solutions to Refraction Problems in Metamaterials**, *West Chester University Applied Math Seminar*, West Chester, PA.
- February 2017 **Existence of Propagators for Coulomb-Like Potentials in Density Functional Theory**, *Drexel University PDE/Applied Math Seminar*, Philadelphia, PA.