

Eyvindur Ari Palsson

CONTACT INFORMATION	Department of Mathematics and Statistics Bronfman Science Center Williams College 18 Hoxsey St Williamstown, MA 01267	Phone: (413) 597-3957 E-mail: eap2@williams.edu Office: 211
APPOINTMENTS	Assistant Professor, Williams College	July 2014 – Present
	Visiting Assistant Professor, University of Rochester	July 2011 – June 2014
EDUCATION	Cornell University , Ithaca, New York	August 2006 – May 2011
	<ul style="list-style-type: none">• Ph.D. in Mathematics• M.S. in Mathematics• Advisor: Dr. Camil Muscalu, Department of Mathematics	Awarded May 2011 Awarded May 2009
	University of Iceland , Reykjavík, Iceland	August 2003 – May 2006
	<ul style="list-style-type: none">• B.S. in Mathematics• Icelandic equivalent of Summa Cum Laude	
RESEARCH INTERESTS	Harmonic Analysis, Geometric Measure Theory, Additive Number Theory and Partial Differential Equations.	
PUBLICATIONS	<ol style="list-style-type: none">1. D. Burt, E. Goldstein, S. Manski, S. J. Miller, E. A. Palsson, H. Suh, <i>Crescent configurations</i>, (2015), submitted, arXiv:1509.07220.2. R. Dorward, P. Ford, E. Fourakis, P. Harris, S. J. Miller, E. A. Palsson, H. Paugh, <i>Individual gap measures from Generalized Zeckendorf decompositions</i>, (2015), submitted, arXiv:1509.03029.3. R. Dorward, P. Ford, E. Fourakis, P. Harris, S. J. Miller, E. A. Palsson, H. Paugh, <i>A Generalization of Zeckendorf's Theorem via Circumscribed m-gons</i>, (2015), submitted, arXiv:1508.07531.4. Y. Do, R. Oberlin, E. A. Palsson, <i>Variation-norm and fluctuation estimates for ergodic bilinear averages</i>, (2015), Indiana University Mathematics Journal, accepted for publication, arXiv:1504.07134.5. B. Murphy, E. A. Palsson and G. Petridis, <i>The cardinality of sumsets: different summands</i>, Acta Arithmetica, 167 (2015), 375–395. arXiv:1309.21916. A. Greenleaf, A. Iosevich, B. Liu and E. A. Palsson, <i>A group-theoretic viewpoint on Erdős-Falconer problems and the Mattila integral</i>, (2013), Revista Matemática Iberoamericana, accepted for publication, arXiv:1306.3598.7. D. Geba, A. Greenleaf, A. Iosevich, E. A. Palsson, E. Sawyer, <i>Restricted convolution inequalities, multilinear operators and applications</i>, Mathematical Research Letters, 20 (2013), 675–694. arXiv:1209.65748. L. Grafakos, A. Greenleaf, A. Iosevich, E. A. Palsson, <i>Multilinear generalized Radon transforms and point configurations</i>, (2012), Forum Mathematicum, 27 (2015), 2323-2360. arXiv:1204.4429.9. Y. Do, R. Oberlin, E. A. Palsson, <i>Variational bounds for a dyadic model of the bilinear Hilbert transform</i>, Illinois Journal of Mathematics, 57 (2013), 105–120. arXiv:1203.5135	

10. A. Iosevich, M. Mourgoglou, E. A. Palsson, *On angles determined by fractal subsets of the Euclidean space via Sobolev bounds for bi-linear operators*, (2011), Mathematical Research Letters, accepted for publication, [arXiv:1104.5160](https://arxiv.org/abs/1104.5160).
11. E. A. Palsson, *L^p estimates for a singular integral operator motivated by Calderón's second commutator*, Journal of Functional Analysis, **262** (2012), 1645–1678. [arXiv:1110.6792](https://arxiv.org/abs/1110.6792)
12. E. A. Palsson, *L^p estimates for a singular integral operator motivated by Calderón's second commutator*, PhD Thesis, Cornell University, May 2011.

BOOKS PUBLISHED **Punktar og Tölur**, by Askill Hardarson, Eyvindur Ari Palsson and Stefan Freyr Gudmundsson. We published three volumes intended for middle school students interested in math competitions. These three books covered material not traditionally taught in Iceland.

GRANTS AND AWARDS **University of Rochester Researcher Mobility Travel Grant**, 2013
\$5000 available for travel.

AMS Simons Travel Grant, 2012
\$4000 available for travel to be used within the next two years.

MRC Additional Collaboration Funding, 2011
Applied for and received leftover funding from the MRC that allowed Yen Do, Richard Oberlin and myself to visit Christoph Thiele at UCLA for a week.

Conference Travel Grant, 2010, 2011
a competitive grant from Cornell University

Cornell Mathematics Department Graduate Student Teaching Award, 2009
Cornell University, for excellence in teaching

Research Travel Grant, 2009
a competitive grant from Cornell University

Bronze Medal at the International Mathematical Olympiad, 2003
Tokyo, Japan.

COLLOQUIUM TALKS *Point configurations and the Erdős distinct distance problem*,
Mathematics and Statistics Department Colloquium, **Williams College**, July 1, 2015.

Finite point configurations and multilinear Radon transforms,
Department of Mathematics Undergraduate Colloquium, **Trinity College**, October 9, 2014.

Multilinear phenomena in analysis and related areas,
Department of Mathematics Colloquium, **The University of Alabama**, February 18, 2014.

Finite point configurations and multilinear Radon transforms,
Mathematics and Statistics Department Colloquium, **Williams College**, January 28, 2014.

Finite point configurations and multilinear generalized Radon transforms,
Maths Colloquium, **University of Queensland Brisbane**, June 3, 2013.

Finite point configurations and multilinear generalized Radon transforms,
Sydney-UNSW Joint Colloquium, University of Sydney, May 31, 2013.

Finite point configurations and multilinear generalized Radon transforms,
Colloquium, **University of Rochester**, May 2, 2013.

SEMINAR
TALKS

Variational bounds for a dyadic model of the bilinear Hilbert transform,
Analysis Seminar, **Brown University**, March 9, 2015.

Variational bounds for the bilinear Hilbert transform,
Faculty Seminar, **Williams College**, February 27, 2015.

Variational bounds for a dyadic model of the bilinear Hilbert transform,
Analysis Seminar, **State University of New York Albany**, November 12, 2014.

Finite point configurations and multilinear Radon transforms,
Trimester Seminar, **Hausdorff Research Institute for Mathematics**, Bonn, Germany, July 29, 2014.

Multilinear phenomena in analysis and related areas,
Analysis Seminar, **University of Rochester**, November 8, 2013.

Restricted convolution inequalities, multilinear operators and applications,
Pure Mathematics Seminar, **University of Queensland Brisbane**, June 4, 2013.

Multilinear generalized Radon transforms,
Analysis Seminar, **Brown University**, November 19, 2012.

Multilinear generalized Radon transforms,
Analysis Seminar, **Indiana University Bloomington**, October 25, 2012.

Multilinear generalized Radon transforms,
Analysis Seminar, **University of Rochester**, October 19, 2012.

On multilinear generalized Radon transforms,
Analysis Seminar, **Cornell University**, March 26, 2012.

On multilinear generalized Radon transforms,
Analysis and PDE Seminar, **University of California Los Angeles**, January 13, 2012.

On multilinear generalized Radon transforms and angles,
Analysis Seminar, **University of Rochester**, December 9, 2011.

L^p estimates for a singular integral operator motivated by Calderón's Commutators,
Analysis Seminar, **Georgia Tech**, December 8, 2010.

L^p estimates for a singular integral operator motivated by Calderón's Commutators,
Analysis Seminar, **Cornell University**, October 25, 2010.

L^p estimates for a singular integral operator motivated by Calderón's Commutators,
Analysis Seminar, **University of Rochester**, October 22, 2010.

L^p estimates for a singular integral operator motivated by Calderón's Commutators,
Calderón-Zygmund Analysis Seminar, **University of Chicago**, May 3, 2010.

CONFERENCE
TALKS

Finite point configurations,
Special Session on Geometric Aspects of Harmonic Analysis, Joint Meeting of the AMS, EMS and SPM, Porto, Portugal, June 12, 2015.

Finite point configurations,
International Conference on Harmonic Analysis and Applications, The Graduate Center of City University of New York, June 1, 2015.

Restricted convolution inequalities, multilinear operators and applications,
Harmonic Analysis to celebrate Michael Cowling's 65th, Segovia, Spain, July 2, 2014.

Falconer type theorems for simplices,
Special Session on Harmonic Analysis and Applications, Joint Meeting of the AMS and the RMS, Alba Iulia, Romania, June 29, 2013.

Variational bounds for a dyadic model of the bilinear Hilbert transform,
AMS Special Session on Harmonic Analysis and Convexity, Fall Central Sectional Meeting, Akron, Ohio, October 21, 2012.

Variational bounds for a dyadic model of the bilinear Hilbert transform,
AMS Special Session on Wavelet and Frame Theoretic Methods in Harmonic Analysis and Partial Differential Equations in Memory of Daryl Geller, Fall Eastern Sectional Meeting, Rochester, New York, September 29, 2012.

On multilinear generalized Radon transforms,
AMS Special Session on Radon Transforms and Geometric Analysis (in honor of Sigurdur Helgason's 85th birthday), Joint Mathematics Meetings, Boston, Massachusetts, January 7, 2012.

L^p estimates for a singular integral operator motivated by Calderón's Commutators,
Incompressible Fluids, Turbulence and Mixing. In honor of Peter Constantin's 60th birthday., Carnegie Mellon University, Pittsburgh, Pennsylvania, October 15, 2011.

L^p estimates for a singular integral operator motivated by Calderón's Commutators,
AMS Session on Topics in Analysis, Joint Mathematics Meetings, New Orleans, Louisiana, January 9, 2011.

POSTERS

L^p estimates for a singular integral operator motivated by Calderón's Commutators,
Harmonic Analysis and Applications - A Conference in honor of the 70th birthday of Richard Wheeden, University of Seville, Spain, June 14 - June 18, 2010.

EXPOSITORY
TALKS

Patterns and algorithms, **MathBlast**, Williams College, December 8, 2014.

Finite point configurations and calculus, **Irondequoit Calculus Classes Field Trip**, University of Rochester, May 22, 2014.

Salem sets and restriction properties of Fourier transforms (two 50-minute lectures), **Summer school on Harmonic Analysis, Geometric Measure Theory and Additive Combinatorics**, Catalina Canyon Resort (California), June 25 - June 29, 2012.

A $T(1)$ theorem on product spaces (two 60-minute lectures), **Internet Analysis Seminar**, Georgia Tech (Georgia), June 11 - June 15, 2012.

Tangential boundary behavior of functions in Dirichlet-type spaces (two 60-minute lectures), **Internet Analysis Seminar**, Sea Palms Resort on St. Simon's Island (Georgia), June 13 - June 17, 2011.

The water wave problem, **Olivetti Club**, Cornell University, April 20, 2010.

WKB asymptotic behavior of almost all generalized eigenfunctions for one-dimensional Schrödinger operators with slowly decaying potentials (two 45-minute lectures), **Summer School on Harmonic Analysis, Carleson Theorems and Multilinear Analysis**, Snowbird Resort (Utah), June 27 - July 3, 2009.

Singular integral operators, **Olivetti Club**, Cornell University, March 31, 2009.

An inverse theorem for the Gowers $U^3(G)$ norm (two 60-minute lectures), **Summer School on Additive Combinatorics**, Catalina Canyon Resort (California), August 10 - August 15, 2008.

The Waiting Time Paradox, **Mathematical Seminar**, University of Iceland, February 27, 2006.

OTHER
CONFERENCES
ATTENDED

Joint Mathematics Meetings, Baltimore, Maryland, January 15 - January 18, 2014.

Joint Mathematics Meetings, San Diego, California, January 9 - January 12, 2013.

Workshop on Geometric Analysis on Euclidean and Homogeneous Spaces, Tufts University, Medford, Massachusetts, January 8 - January 9, 2012.

Conference in Harmonic Analysis and Partial Differential Equations in honour of Eric Sawyer, Fields Institute, Toronto, Canada, July 26 - July 29, 2011.

Analysis and Applications: A Conference in Honor of Elias M. Stein, Princeton University, Princeton, New Jersey, May 16 - May 20, 2011.

AMS Fall Eastern Sectional Meeting, Syracuse University, Syracuse, New York, October 2 - October 3, 2010.

Euclidean Harmonic Analysis, Nilpotent Lie Groups and PDEs, Centro di Ricerca Matematica Ennio De Giorgi, Pisa, Italy, March 22 - March 30, 2010. (Partial funding by the De Giorgi center.)

Joint Mathematics Meetings, San Francisco, California, January 13 - January 16, 2010. (Funded by the AMS.)

Recent Advances in Harmonic Analysis and Elliptic Partial Differential Equations, University of Virginia, May 8 - May 10, 2009. (Funded by the conference.)

24th Nordic and 1st Franco-Nordic Congress of Mathematicians, Reykjavik, Iceland, January 2005.

ADVISING

Undergraduate Independent Studies Advised at the University of Rochester

<i>Four Color Theorem</i> , C. Fredrickson	Fall 2013
<i>Dynamics of Zombies</i> , A. Murray	Spring 2013
<i>Betting and the Kelly Criterion</i> , N. Benjamin	Fall 2012
<i>Applications of the Radon Transform</i> , J. Rowan	Fall 2012

TEACHING

Williams College

Harmonic Analysis, Instructor	Spring 2016
Partial Differential Equations, Instructor	Spring 2015
Applied Real Analysis, Instructor	Spring 2016
Differential Equations, Instructor	Spring 2015
Calculus II, Instructor	Fall 2014
Calculus I, Instructor	Fall 2015

University of Rochester

Functions of a Real Variable, Instructor	Fall 2012
Combinatorics, Instructor	Spring 2012, Fall 2013

Qualitative Theory of Ordinary Differential Equations, Instructor	Fall 2011
Introduction to Mathematical Models in the Life Sciences, Instructor	Spring 2013, 2014
Linear Algebra with Differential Equations, Instructor	Spring 2013, Fall 2011, 2013
Calculus II, Instructor	Spring 2012, 2014, Fall 2012

Cornell University

Calculus I, Assistant to the Course Coordinator	Spring 2011
Calculus II for Engineers, Instructor	Fall 2009
Calculus II, Instructor	Spring 2009
Calculus II for Engineers, Assistant to the Course Coordinator	Fall 2009, 2010
Multi-variable Calculus for Engineers, Assistant to the Course Coordinator	Fall 2007, 2008 Spring 2008
Multi-variable Calculus for Engineers, Teaching Assistant	Fall 2006, 2007, 2008 Spring 2007, 2008

University of Iceland

Real Analysis for Math Majors, Teaching Assistant	Fall 2004
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SERVICE

Referee for the Proceedings of the American Mathematical Society, Mathematical Research Letters, The Journal of Geometric Analysis and American Mathematical Monthly.

Reviewer for Mathematical Reviews and Zentralblatt MATH.

Co-organizer of the University of Rochester Math Olympiad, February 2012 and 2013.

MEMBERSHIP

Member of the *American Mathematical Society*; August 2006 to Present

Member of the *Mathematical Association of America*; April 2015 to Present

Member of the *Icelandic Mathematical Society*; August 2003 to Present