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APPOINTMENT	<p><b>Texas A&amp;M University</b>, College Station, Texas, USA          Visiting Assistant Professor, Department of Mathematics, Sept 2009 - June 2012.  <i>'Advisor': Professor Alexei Poltoratski</i></p>	
EDUCATION	<p><b>Brown University</b>, Providence, Rhode Island, USA          Ph.D., Department of Mathematics, May 2009.  <i>Advisor: Professor Sergei Treil</i>  <i>Thesis title: Singular integral operators and rank one perturbations</i>          Sc.M., Division of Applied Mathematics, May 2006.</p> <p><b>Universität Stuttgart</b>, Stuttgart, GERMANY          Dipl. Math., Fakultät Mathematik und Physik, July 2004.  <i>Advisor: Professor TeknD Timo Weidl</i>  <i>Thesis title: Weak Coupling Limits for Higher Order Operators</i>          Vordiplom, Fakultät Mathematik und Physik, July 2001.</p> <p><b>University of Limerick</b>, Limerick, IRELAND          ERASMUS Exchange Student, Fall 2001, Spring 2002.</p>	
RESEARCH INTERESTS	<p><b>Harmonic and complex analysis</b>, in particular two weight estimates of singular integral operators and problems in non-homogeneous harmonic analysis related to spectral theory</p> <p><b>Spectral Theory</b>, especially rank one perturbations and Anderson-type Hamiltonians including random Schrödinger operators</p> <p><b>Model Theory</b>, often in relation with perturbation theory</p> <p><b>Mathematical Physics</b> using mostly analytic approaches</p>	
PUBLICATIONS	<p><b>C. Liaw</b> and S. Treil, <i>Regularizations of general singular integral operators</i>. Revista Mathematicae Iberoamericano, <b>28</b>, no. 3 (2012). Also see arXiv:1010.6184.</p> <p><b>C. Liaw</b> and S. Treil, <i>Rank one perturbations and singular integral operators</i>. J. Funct. Anal., <b>257</b> (2009) 1947–1975. Also see arXiv:0810.2750.</p>	
PREPRINTS	<p><b>C. Liaw</b>, <i>Deterministic Spectral Properties of Anderson-type Hamiltonians</i>. Submitted, see arXiv:1009.1353.</p>	

E. Abakumov, **C. Liaw**, A. Poltoratski, *Cyclic vectors for rank one perturbations and Anderson-type Hamiltonians*. Submitted, see arXiv:1111.3095.

R. Douglas, **C. Liaw**, *A geometric approach to rank one perturbations via the theory of dilations*. To be submitted, see arXiv:1110.4938.

**C. Liaw**, *Regularizations of certain singular integral operators for two weights*. See <http://www.math.tamu.edu/~conni/RegCZOExamples.pdf>.

## AWARDS

**NSF DMS-1101477 Analysis grant as PI: Complex and Harmonic Analysis; Cyclic and Subcyclic vectors of Rank One Perturbations and Anderson-type Hamiltonians**, 2011 - 2014, \$103,564.

**NSF for pre-REU as paid postdoc**, Summer 2011, one month summer salary.

**NSF DMS-1101551 conference grant as Co-PI** for organizing *Waves and Spectra*, January 2011, \$29,000.

**IMA conference grant** for organizing *Waves and Spectra*, January 2011, \$2,000.

**AMS travel grant supported by NSF** to attend ICM 2010, Hyderabad, India, August 2010, \$3,050.

**Department of Mathematics Outstanding Teaching Award**, Brown University, May 2009.

**Graduate Fellowship**, Brown University, 2004 - 2005, one semester funding.

ORGANIZING  
EXPERIENCE

**Recent advances in Harmonic Analysis and Spectral Theory** concentration week within the Analysis and Probability workshop, Department of Mathematics, Texas A&M University, August 2012.

**Informal Postdoctoral meetings**, Department of Mathematics, Texas A&M University, June 2011 - present.

**Waves and Spectra** research conference, Department of Mathematics, Texas A&M University, January 2011.

**Analysis/PDE Reading Seminar**, Department of Mathematics, Texas A&M University, Fall 2010.

**Analysis Reading Seminar**, Department of Mathematics, Brown University, Fall 2008, Spring 2009. (I had initiated the seminar.)

**Math Resource Center**, Department of Mathematics, Brown University, Fall 2007 - Spring 2009.

- INVITED TALKS    **Workshop for Women in Analysis and PDE**, Minneapolis, MN, May 2012.
- Prairie Analysis Seminar, Kansas State University**, Manhattan, KS, October 2011.
- Mathematical physics seminar, Baylor University**, Waco, TX, October 2011.
- Analysis seminar, UT Austin**, October 2011.
- SUMIRFAS**, Texas A&M University, July 2011.
- SEAM - Southeastern Analysis Meeting XXVII**, March 2011.
- Karcher Special Lecture, University of Oklahoma**, Norman, March 2011.
- Waves and Spectra**, Texas A&M University, January 2011.
- Séminaire d'Analyse Fonctionnelle, Paris VI**, January 2011.
- AMS Sectional Meeting**, Analysis session, Richmond, VA, November 2010.
- Stulken Geometry-Analysis Seminar, Rice University**, TX, October 2010.
- SEAM - Southeastern Analysis Meeting XXV**, March 2009.
- Analysis seminar, Michigan State University**, Lansing, October 2008.
- SUMIRFAS**, Texas A&M University, August 2008.
- LOCAL TALKS    **Linear Analysis seminar**, Texas A&M University, Spring 2010, Spring 2011.
- Mathematical Physics seminar**, Texas A&M University, Fall 2009, Fall 2010.
- Analysis reading seminar**, Texas A&M University, five talks 2009 - 2011.
- Analysis Seminar**, Brown University, Spring 2008.
- Transatlantic Seminar**, Brown University, Division of Applied Mathematics, Spring 2007.
- Colloquium** at the Institute of Analysis, Dynamics and Modeling, Universität Stuttgart, Spring 2004.
- CONFERENCES,  
WORKSHOPS  
(PARTICIPANT)    **Non-Linear Geometry of Banach Spaces, Differentiability and Geometric Group Theory**, Texas A&M University, August 2011.

**Western States Mathematical Physics Seminar**, California Institute of Technology, February 2012.

**AIM - Careers in Academia**, June 2011.

**Internet Analysis Seminar**, June 2011.

**ICM 2010**, Hyderabad, India, August 2010.

**Orthogonal Polynomials in Probability Theory** and **SUMIRFAS**, Texas A&M University, July and August 2009.

**SEAM** - Southeastern Analysis Meeting XXV, University of South Florida, March 2009.

**Operator Algebras, Dynamics, and Classification** and **SUMIRFAS**, Texas A&M University, August 2008.

**Function Spaces and Their Operators**, Richard Rochberg's 65th Birthday, Washington University in St. Louis, May 2008.

**SEAM** - Southeastern Analysis Meeting XXIV, Vanderbilt University, March 2008.

**Workshop on Recent Advances in Operator Theory and Function Theory**, Fields Institute, Research in Mathematical Science, University of Toronto, CANADA, January 2008.

**SUMIRFAS** - The Informal Regional Functional Analysis Seminar, Texas A&M University, August 2007.

**AMS Regional Meeting**, University of Connecticut, Storrs, October 2006.

**SimonFest**, A Conference in Honor of Barry Simon's 60th Birthday, Cal Tech, March 2006.

**4ecm** - Fourth European Congress of Mathematics, Royal Institute of Technology, Stockholm University, European Mathematical Society, Stockholm, Sweden, June-July 2004.

TEACHING  
CREDENTIALS

**Department of Mathematics Outstanding Teaching Award**, Brown University, May 2009.

**Sheridan Center for Teaching and Learning**, Brown University

Teaching Certificate: Five lectures followed by workshops with assignments, a critiqued practice training session, and a video evaluation of lecture skills, Fall 2007 - May 2008.

Teaching Consultant: Visit and evaluate lectures, as well as provide feedback to the teacher, Fall 2008 - Spring 2009.

Discussion Leader: Facilitate workshop discussions about pedagogical aspects of teaching, Fall 2008 - Spring 2009.

TEACHING  
EXPERIENCE

**Visiting Assistant Professor**, Texas A&M University

Linear Algebra, Spring 2012.

Calculus I (two sections), Fall 2011.

pre-**REU**, Summer 2011.

Differential Equations with a matlab component (two sections), Spring 2011.

Calculus III (two sections), Fall 2010.

Calculus II, Fall 2009.

Structure of Mathematics, Fall 2009.

In the calculus sections, I had an average of 85 students and a graduate Teaching Assistant or grader. Structure of Mathematics was a particular challenge. The goal of the course is to teach mathematical concepts to students in elementary education. There were 33 students in my class. The pre-REU was a 5-week program. We mentored 20 freshmen and sophomore mathematics majors without background in real analysis.

**Teaching Fellow (Instructor of record)**, Brown University

Calculus I, Summer 2009.

Honors Linear Algebra, Spring 2009.

Linear Algebra, Spring 2008.

Calculus III, Fall 2007.

Analytic Geometry and Calculus, Spring 2007.

Taught my own section of the course for 22–30 students 3 times each week. In the spring of 2007, I was the only instructor teaching 'Analytic Geometry and Calculus'. I chose the book, planned the schedule of the semester, and wrote the quizzes, exams, overviews and review sheets to prepare them for the exam.

**Teaching Assistant**, Brown University and Universität Stuttgart

Advanced Placement Calculus, Fall 2006.

Calculus III, Spring 2006.

Calculus I, Fall 2005.

Real Analysis III, Fall 2003.

Real Analysis II, Spring 2003.

Calculus I, Fall 2002.

Held two sections of weekly problem sessions for 15–20 students.

**Tutoring**

Organizer of Math Resource Center, Fall 2007 - Spring 2009.

Tutor at Math Resource Center, Fall 2004, Spring 2005.

Private tutoring 1993 - 2009.

REFERENCES

Albert Boggess (teaching)  
boggess@math.tamu.edu  
Texas A&M University

Alexei Poltoratski (postdoc advisor)  
alexeip@math.tamu.edu  
Texas A&M University

David Damanik  
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Christian Remling  
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Ronald G. Douglas  
rdouglas@math.tamu.edu  
Texas A&M University

Sergei Treil (Ph.D. advisor)  
treil@math.brown.edu  
Brown University

CITIZENSHIP

I am German, and a lawful **permanent resident** of the USA.