Dr. Tamás Forgács

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Education

Ph.D. in Mathematics, University of Illinois at Urbana-Champaign, 2007
Master of Science in Mathematics, University of Iowa, 2001
Master of Arts in Economics, Eastern Illinois University, 1998
Bachelor of Arts in Economics, Corvinus University, Budapest, 1996

Employment

Associate Professor of Mathematics - CSU Fresno	*Fall 2013 - present*
Visiting Associate Professor of Mathematics	
University of Hawai'i at Manoa	*Fall 2013-Spring 2014*
Assistant Professor of Mathematics - CSU Fresno	*Fall 2007 - Spring 2013*
Visiting Professor - Brigham Young University	*Summer, 2011*
Instructor of Mathematics - University of Illinois	*Fall 2005-Spring 2006*
Teaching Assistant - University of Illinois	*Fall 2001 - Fall 2004*
Teaching Assistant - University of Iowa	*Fall 1999 - Spring 2001*
Instructor - Parkland College	*Fall 1999-Spring 2000*

Publications and works in preparation

M. Chasse, T. Forgács and A. Piotrowski, A characterization of polynomially interpolated Legendre multiplier sequences, *in preparation.*

T. Forgács and K. Tran, Polynomials with rational generating functions and real zeros. *Submitted.* arXiv:1601.02582

G. Csordas, and T. Forgács, Multiplier sequences, classes of generalized Bessel functions and open problems, *J. Math. Anal. Appl.* **433** (2016), pp. 1369-1389. DOI: 10.1016/j.jmaa.2015.08.047

T. Forgács and A. Piotrowski, Hermite multiplier sequences and their associated operators, *Constr. Approx.* **43**(3) (2015), pp. 459-479. DOI 10.1007/s00365-015-9277-3

T. Forgács, 2015. FURST - A Symbiotic Approach to Research at Primarily Undergraduate Institutions. In: Peterson, M. A., and Rubinstein, Y. A., ed. *Directions for Mathematics Research Experience for Undergraduates.* World Scientific. pp. 17-31.

T. Forgács, J. Haley, R. Menke, and C. Simon, The non-existence of cubic Legendre multiplier sequences, *Involve, a Journal of Mathematics,* **7-6** (2014), 773–786. DOI 10.2140/involve.2014.7.773

T. Forgács and A. Piotrowski, Multiplier sequences for generalized Laguerre bases, *Rocky Mountain J. of Math.*, **43** (2013) (4), 1141-1159.

K. Blakeman, E. Davis, T. Forgács, and K. Urabe, On Legendre Multiplier Sequences, *Missouri J. Math. Sci.*, **24** (2012) (1), 7-23.

T. Forgács, J. Tipton, B. Wright, Multiplier Sequences for Simple Sets of Polynomials, *Acta Math. Hungar.*, **137** (2012) (4), 282-295. DOI: 10.1007/s10474-012-0222-7

T. Forgács, O. Vega, *Analysis and Algebra*, Cognella Publishing, First edition, 2012. ISBN: 978-1-60927-756-7

A. Cseh, and T. Forgács,The effects of Mental Health Parity Legislation on Mental Health Related Hospitalizations, *The Journal of Economics*, **XXXV** (2009), (1), 1-20.

T. Forgács, D. Varolin, Sufficient Conditions for Interpolation and Sampling Hypersurfaces in the Bergman Ball, *Int. J. of Math*, **18** (2007), (5), 559-584.

Grants

NSF - Faculty and Undergraduate Research Student Teams (FURST)   *under review* **($85,766.00)**
NSF - Complex Analysis Redesign: Modules and Applications (CARMA) *under review* **($143,391.00)**
co-PI on a grant proposal aiming to redesign the undergraduate complex analysis curriculum focusing on modules and applications.
NSF supplement to SMALL ($10,000.00)   2015
Co-wrote the grant proposal with Steven J. Miller at Williams College to support the national REU outreach effort to underrepresented minority students in STEM
NSF REU Site renewal grant ($220,000.00)   2015-2018
PI: Direct and mentor summer undergraduate research in a 3 year summer research program
FURST - NSF supplement ($39,000.00)   2014
PI: Direct a pilot program for faculty-student research teams.
NSF New REU Site grant ($198,350.00)   2012-2013
PI: Direct and mentor summer undergraduate research in a 2 year summer research program
NSF-CURM mini grant ($19,850.00+$2,900.00 in matching funds)   2010-2011
PI:Direct and advise a 4 member undergraduate research team

Selected Presentations and Conferences

Undergraduate research - the 5 Ws	*Fresno, CA, November 2015*
Opportunities in the mathematical sciences:	*UC Irvine, April 2015*
A workshop for emerging scholars	
Invited panelist - Undergraduate research panel	
AMS-MAA Joint Meeting	*San Antonio, TX, January 2015*

Title: *"Classical multiplier sequences: a special class, continuous transformations, and connections to special functions"*

AMS-MAA Joint Meeting	*San Antonio, TX, January 2015*

Title: *"Implementing modules - a case study"*

PUMP Summer Program Colloquium	*Cal Poly Pomona, July, 2014*

Title: *"Polynomials, derivatives and location of zeros"*

Workshop on Revitalizing Complex Analysis	*Westmont College, Santa Barbara, June, 2014*

Title: *"Complex Analysis and REUs"*

UH Function Theory seminar	*Honolulu, HI, February, 2014*

Title: *"The non-existence of cubic Legendre multiplier sequences, Part I & II"*

AMS-MAA Joint Meeting	*Baltimore, MD, January 2014*

Title: *"Multiplier sequences of the second kind"*

UH Graduate Complex Analysis seminar	*Honolulu, HI, October 2013*

Title: *"Hermite Diagonal operators, Part I, II & III"*

Colloquium - University of Hawai'i	*Honolulu, HI, October, 2013*

Title: *"Parallel approaches in the theory of multiplier sequences"*

Mt. Holyoke: New Directions for REUs	*East Hadley, MA, June, 2013*

Title: *"FURST - a symbiotic approach to research"*

Department of Mathematics Seminar	*Fresno, CA, April 12, 2013*

Title: *"Classification of Laguerre multiplier sequences, Part II"*

Department of Mathematics Seminar	*Fresno, CA, April 5, 2013*

Title: *"Classification of Laguerre multiplier sequences, Part I"*

AMS-MAA Joint Meeting	*San Diego, CA, January 2013*

Title: *"Coefficient Polynomials of Hermite Diagonal Operators"*
TURMS conference   *Chicago, IL , October 27, 2012*
Title: *"Challenges in developing and sustaining an internalized undergraduate research program in mathematics - the Fresno State experience"*
Department of Mathematics Seminar   *Fresno, CA, October 5, 2012*
Title: *"A new characterization of Hermite multiplier sequences, Part II"*
Department of Mathematics Seminar   *Fresno, CA, September 21, 2012*
Title: *"A new characterization of Hermite multiplier sequences, Part I"*
Department of Mathematics Colloquium   *Fresno, CA, September 21, 2012*
Title: *"Linear Operators on $R[x]$"*
AMS-MAA Joint Meeting   *Boston, MA, January 2012*
Title: *"Multiplier sequences for simple sets of polynomials"*
Summer REU talk   *Provo, UT, June 15, 2011*
Title: *"Zeros of polynomials"*
Department of Mathematics Colloquium   *Fresno, CA, February 25, 2011*
Title: *"O zeros where art thou?"*
Department of Mathematics Seminar   *Fresno, CA, February 14, 2011*
Title: *"On Hermite diagonal operators"*
Southern Economic Association 80th Annual Meeting   *Atlanta, GA, November 22, 2010*
Title: *"On the n-person chicken game"*
Department of Mathematics Seminar   *Fresno, CA, April 29, 2010*
Title: *"Rigor in the chicken game - some proofs and ideas"*
AMS-MAA Joint Meeting   *San Francisco, CA, January 13-16, 2010*
Title: *"Addiction and Treatment in a rational framework - can lowering health care costs have adverse effects?"*
Southern Economic Association 79th Annual Meeting *San Antonio, TX., November 21, 2009*
Title: *"Urbanization and the Cultural Costs of International Trade"*
Missouri Valley Economic Association 46th Annual Meeting   *Kansas City, October, 2009*
Title: *"The More the Merrier? The Effects of Mental Health Parity Legislation on the Availability and Quality of Mental Health Treatment: a Game Theoretic Approach"*
Department of Mathematics Seminar   *Fresno, CA, April 2, 2009*
Title: *"An Inclusion Theorem for Multiplier Sequences"*
Regional Conference on Excellence in Teaching and Learning *Fresno, CA, March 13, 2009*
Title: *"Does small group independent problem solving solve any problems? The case of Math 171 Intermediate Mathematical Analysis"*
Southern Economic Association 78th Annual Meeting *Washington D.C., November 21, 2008*
Title: *"A Rational Addiction-Treatment Model with Interacting Stocks"*
Department of Mathematics Seminar   *Fresno, CA, November 13, 2008*
Title: *"Extrema of functionals, the Euler-Lagrange equation and an application to economics"*
Missouri Valley Economic Association 45th Annual Meeting   *St. Louis, October, 2008*
Title: *"Aspects of Modeling Cultural Barriers in International Trade"*
Department of Mathematics Seminar   *Fresno, CA, April 3, 2008*
Title: *"Laguerre multiplier sequences - towards a classification theorem. Part I."*
Missouri Valley Economic Association 44th Annual Meeting   *Kansas City, October, 2007*
Title: *"The effects of parity legislation on mental health care utilization"*
Department of Mathematics Seminar   *Fresno, CA, October 4, 2007*
Titlte: *"A primer on rational addiction"*
Department of Mathematics Seminar   *Fresno, CA, September 27, 2007*
Title: *"Notions of uniform flatness"*

Students

Undergraduate Research
Molly Corcoran   *Independent research supervision, Spring, 2015*

James Haley, Rebecca Menke, Carlee Simon, and Fernando Quintino	*Fresno State REU, June-August, 2013*
Hagop Karakazian	*Independent research supervision, Spring 2012-Fall 2012*
Kelly Blakeman, Emily Davis and Katherine Urabe	*Brigham Young University REU, June-August, 2011*
Mario Banuelos, Michelle Hoshiko James Tipton, Benjamin Wright	*CURM Undergraduate Research Group supervision, Fall 2010-Spring 2011*
Whitney Walker	*Senior Project supervision, Fall 2009*
Michelle Hoshiko, Luciana Montalvo	*Summer REU, 2009*
Iliana Perez	*Senior Project supervision, Fall 2008*

Graduate Research

Jeffrey C. Park	*Masters Thesis supervision, Spring 2016*
David Heywood	*Masters Thesis supervision, Spring 2015*
Kristi Rieg	*Masters Project supervision, Spring 2011*
Danielle Alberti	*Masters Project supervision, Spring 2010*
Luke Denton	*Masters Project supervision, Spring 2009*

Professional Development

Workshop on Revitalizing Complex Analysis	*Santa Barbara, CA, June, 2014*
Mt. Holyoke conference on REU directions	*East Hadley, MA, June, 2013*
Trends in Undergraduate Research (TURMS) conference	*Chicago, IL, October, 2012*
Mentoring Minority Students in REUs	*PCMI, Park City, UT July, 2012*
Experiencing Mathematics & Statistics Workshop - Teaching with Technology	*Napa, September, 2010*
CURM Faculty workshop on mentoring undergraduate research	*Draper, UT June, 2010*
CSALT - Conference on Active Learning	*March 2, 2010*
CETL - Regional Conference on Excellence in Teaching and Learning	*March 13, 2009*
CETL workshop series (6 workshops)	*Fall 2008-Spring 2009*
Service Learning Mini Grant Workshops	*Fall 2008*

Professional Service

AMS-MAA Joint Meetings	*Seattle, WA, January, 2016*
Session organizer - Research Conducted by Undergraduates I-IV	
Session organizer - Distribution of zeros of entire functions.	
Mathematical Biology Search Committee	*Fall '15-Spring '16*
Search committee member (department level)	
AMS Fall Sectional Meeting	*October 24-25, Fullerton, CA*
Session organizer for Research Conducted by Early Career Graduate students.	
Referee - Bollettino dell'Unione Matematica Italiana	*October, 2015*
Refereed a journal article.	
REU leadership administrator	*2012-present*
I maintain and moderate a listserv for all REU PIs in the US	
AVP for Enrollment Management Search Committee	*Fresno, CA, Fall 2014-Spring 2015*

Search committee member (university level)
Analysis Search Committee *Fresno, CA, Fall 2014-Spring 2015*
Search committee member (department level)
AMS-MAA Joint Meetings *San Antonio, TX, January, 2015*
Session organizer - Research Conducted by Undergraduates I-IV
Session chair - Advances in Analysis
Referee - Proceedings of the New Directions in REUs conference *August, 2014*
Refereed a book chapter.
Referee - Computational Methods and Function Theory *February, 2014*
Refereed a journal article.
AMS-MAA Joint Meetings *Baltimore, MD, January 2014*
Session Chair (2 different sessions)
Referee - American Mathematical Monthly *December, 2013*
Refereed a journal article.
National Science Foundation Reviewer *November, 2013*
Reviewed a proposal submitted to the NSF.
Referee - Constructive Approximation *March-April, 2013*
Refereed a journal article for CA
National Science Foundation Panelist *Washington, D.C., November 5-7, 2012*
Primary reviewer for 10 grant proposals
Young Mathematicians Conference *Colombus, OH, July, 2012*
Abstract reviewer for the conference
Pacific Coast Undergraduate Mathematics Conference *March 13, 2012*
Student session moderator
AMS-MAA Joint Meetings *Boston, MA, January 2012*
Student Poster Session Judge
Pacific Coast Undergraduate Mathematics Conference *March 13, 2011*
Student session moderator
AMS-MAA Joint Meetings *New Orleans, LA, January 2011*
Student Poster Session Judge
Southern Economic Association Annual meeting *November 21-23 2010*
Discussant: Christopher Garmon., "Major League Baseball's Rule 4 Draft"
Pacific Coast Undergraduate Mathematics Conference *March 13, 2010*
Student session moderator
AMS-MAA Joint Meetings *San Francisco, CA, January 2010*
Student Poster Session Judge
Southern Economic Association Annual meeting *November 21-23 2009*
Discussant: Joshua Dennis Hall., "The Rate of Technological Progress, Effective Human Capital and the Dynamics of Income Inequality: An Empirical Analysis"
Missouri Valley Economic Association 46th annual meeting *October 22-24 2009*
Discussant: Kent Eliasson et al., "All in the Family: Self Selection and Migration by Couples"
Southern Economic Association Annual meeting *November 20-23 2008*
Discussant: Lisa A. Delgado., "Nash and correlated equilibria in the market for skills"
Missouri Valley Economic Association 45th annual meeting *October 23-25 2008*
Discussant: Valerica Vlad, "Terms of Trade and Environment in a North-South Model with Cross-border Pollution"
Missouri Valley Economic Association 44th annual meeting *October 22-24 2007*
Discussant: Wang, X., *"Tax competition and economic integration with investor lock-in"*

Community Service

Youth Soccer League Coach *August 2014 -present*
Smittcamp Family Honors College application reader *Winter, 2008, 2010*
Wheels of Support Project *Fall 2007 to present*

Founder

Professional Memberships

American Mathematical Society	*2005 - present*
Mathematical Association of America	*2008 - 2011*
Southern Economic Association	*2008 - 2010*
Missouri Valley Economic Association	*2007 - 2009*

Administration and Leadership

Department Undergraduate Research Committee   *Spring 2012 to present*
Chair
CSUF Mathematics Club   *Fall 2008 to present*
Advisor
Departmental Colloquium Series   *Fall 2008 to present*
Chair
CSUF Wheels of Support Club   *Fall 2008 to 2010*
Advisor

Awards and Honors

Faculty Creative Activity Award   *2015*
I was awarded $5,000.00 to support my writing a grant in collaboration with H. Soto-Johnson at NCU on improving STEM education
Faculty Professional Development Award   *AY 2015-16*
I was awarded $1200.00 to support my participation at the joint AMS-MAA meetings in Seattle, WA
Outstanding publication in the Department of Mathematics   *2014*
The department voted my paper in *Involve* to receive this honor.
Faculty Professional Development Award   *Fall 2014*
I was awarded $1200.00 to support my participation at the joint AMS-MAA meetings in San Antonio, TX
College Scholarly and Creative Activity Award   *Fall, 2014*
3 WTU release time awarded for the writing scholarly papers during the fall of 2014
College Scholarly and Creative Activity Award   *Spring, 2014*
$5,000.00 awarded for the writing of two grants during the summer of 2014
Faculty Performance Award   *Fall 2013*
I was awarded $999.00 to support my participation at the joint AMS-MAA meetings in Baltimore, MD
Outstanding publication in the Department of Mathematics   *2012*
The department voted my paper in *Acta Math. Hung.* to receive this honor.
Nominee for the Provost's Award for Promising New Faculty   *Spring, 2012*
I was nominated for this award by the chair of the department of Mathematics.
Faculty Performance Award   *Fall 2011*
I was awarded $999.00 to support my participation at the joint AMS-MAA meetings in Boston, MA
College Scholarly and Creative Activity Award   *Fall 2011*
3 WTU's awarded for the Spring of 2012 at California State University, Fresno
Invited Professor   *June-August, 2011*
Brigham Young University summer REU
Outstanding publication in the Department of Mathematics   *2010*
The department voted my book with O. Vega to receive this honor.
Faculty Performance Award   *Fall 2010*
I was awarded $999.00 to support my participation at the 80th annual meeting of the SEA.

Provost Faculty Scholarship Support *Spring 2010*
I was awarded 3 WTUs to support scholarly advancement
Faculty Performance Award *Fall 2009*
I was awarded $999.00 to support my participation at the 46th annual meeting of the MVEA.
Faculty Performance Award *Fall 2008*
I was awarded $900 to support my participation at the 45th annual meeting of the MVEA.
International Faculty Development Award -CSUF *Fall 2007-Summer 2008*
I was awarded $2500 from the Office of International Programs to support my studies of Spanish and writing at the University of Alicante.
Graduate Faculty/Program Enhancement Award *Spring 2008*
I was awarded $3000 to enhance the instructional material and standardize the syllabus for one of our graduate courses at California State University, Fresno
Faculty Performance Award *Fall 2007*
I was awarded $1200 to support my participation at the 44th annual meeting of the MVEA.
College Scholarly and Creative Activity Award *Fall 2007*
3 WTU's awarded for the 2008-2009 academic year at California State University, Fresno
International Activities Award *2007-2008*
I was awarded $440 to support my studies in Alicante, Spain
Global Ambassador Award *Fall 2007*
An award given in recognition of outstanding alumni of Eastern Illinois University