

Ali Samil Kavruk

Curriculum Vitae

Homepage: <http://people.vcu.edu/~askavruk>

VCU Mathematics
GE Harris Hall, Room 4107
Richmond VA, 23284
☎ 217-418-5074
✉ askavruk@vcu.edu

Employment

- 2015- **Assistant Professor**
Virginia Commonwealth University, Richmond, VA
- 2012-2015 **J.L. Doob Research Assistant Professor**
University of Illinois at Urbana-Champaign, Urbana, IL
- 2011-2012 **Post-doctoral Research Fellow** University of Houston, Houston, TX
Advisor: Dr. Vern I. Paulsen

Education

- 2007-2011 **PhD in Mathematics** University of Houston, Houston, TX
Dissertation Advisor: Dr. Vern I. Paulsen
- 2004-2007 **MS in Mathematics**, Bilkent University, Ankara, Turkey
Master's Thesis Advisor: Dr. Aurelian Gheondea
- 1998-2004 **BS in Mathematics**, Bilkent University, Ankara, Turkey

Research Interest

Operator Algebras, Operator Systems. In Particular, Tensor Theory in Operator Algebras, Nuclearity Related Properties, Quantum Information Theory, Non-commutative Probability, Order and Positivity Theory.

Academic Publications

- In Prep **Exactness & Nuclear Embedability in the Operator System Category**
- In Prep **Relative Weak Injectivity in the Operator System Category**
- In Prep **Symmetrization of Operator Systems and Applications to Quantum Information Theory**
- 2014 **On a non-commutative analogue of a classical result of Namioka and Phelps** (To appear in J. Funct. Anal.)
- 2013 **Characterizations of the Weak Expectation Property** with D. Farenick, V.I. Paulsen and I.G. Todorov, New York J. of Math., to appear.
- 2012 **Operator systems from discrete groups** with D. Farenick, V.I. Paulsen and I.G. Todorov, Comm. in Math. Physics: Vol. 329, Issue 1 (2014), Page 207-238
- 2012 **The Weak Expectation Property and Riesz Interpolations** (Submitted, preprint is available at arXiv:1201.5414)
- 2011 **PH.D. THESIS: Tensor Products of Operator Systems and Applications**
Advisor: Dr. Vern I. Paulsen
- 2011 **Nuclearity Related Properties in Operator Systems** J. of Operator Theory Volume 71, Issue 1, Winter 2014 pp. 95-156
- 2011 **C*-algebras with the weak expectation property and a multivariable analogue of Ando's theorem on the numerical radius** with D. Farenick and Vern I. Paulsen, J. of Op. Theory, Vol. 70, Issue 2, Autumn 2013

- 2010 **Quotients, exactness and nuclearity in the operator system category** with V.I. Paulsen, I.G. Todorov and M. Tomforde
Adv. in Math. Vol. 235, 1 March 2013, Pages 321–360
- 2010 **Tensor products of operator systems** with V.I. Paulsen, I.G. Todorov and M. Tomforde *J. of Functional Analysis* Vol. 261, Issue 2, (2011), 267-299
- 2009 **Absolute continuity of operator valued completely positive maps on C*-algebras** with A. Gheondea *J. Math. Phys.* 50(2009), no.2, 022102, 29 page
- 2009 **A note on Radon-Nikodym derivatives and similarity of completely bounded maps** with A. Gheondea *Opuscula Mathematica*, 29(2009), 139-145
- 2008 **Wavelet Basis in the Space $C_\infty[-1, 1]$** with A. Ganchev *The Open Mathematics Journal*, vol. 1, pp. 19-24 (2008)
- 2006 MASTER'S THESIS: **Complete Positivity in the Operator Algebras**
Supervisor: Dr. Aurelian Gheondea

Presentations and Conferences

Presentations

- December 2015 *Topics in operator systems*
VCU Analysis, Logic and Physics Seminar, Virginia Commonwealth University
- October 2015 *Relative Weak Injectivity for operator systems*
Seminar in operator theory and operator algebras, University of Virginia
- October 2014 *Relative Weak Injectivity for C*-algebras*
GPOTS, Purdue University
- April 2014 *On a non-commutative analogue of a classical result of Namioka and Phelps*
AMS Sectional Meeting, University of New Mexico
- April 2014 *Symmetrization in Operator Systems and Christandl Problem in QIT*
Operator Algebras Learning Seminar, UIUC
- November 2012 *Quantum superactivation of local states*
P.G. Kwiat's Quantum Information Group Meeting, UIUC, Department of Physics
- November 2012 *Nuclearity aspects of non-commutative cubes*
Seminar in operator theory and operator algebras, University of Virginia
- September 2012 *Quotients and Duality in Matrix Systems*
Wabash Miniconference, IUPUI
- August 2012 *Relative Riesz Interpolations in C*-algebra Theory*
SUMIRFAS, Texas A&M University
- Nov 2011 *Tight Riesz Interpolations & Weak Expectation Property*
UofH & TAMU Functional Analysis Day, University of Houston
- May 2011 *Nuclearity Related Properties for Operator Systems*
GPOTS, Arizona State University
- Apr 2011 *Tensor Products of Operator Systems*
Linear Analysis Seminars, Texas A&M University
- Oct 2010 *Tensor Products of Operator Systems and Classifications of Various Nuclearities*
Analysis Seminars, University of Houston
- Oct 2008 *Tensor Products of C*-algebras and Weak Expectation Property*
Graduate Research Seminars, University of Houston
- Nov 2006 *Denjoy Integral, Improper Lebesgue Integral*
Analysis Seminars, Bilkent University

2005-2006 Graduate Research Seminars, Bilkent University
Presentations of the several chapters from
Completely Bounded Maps and Operator Algebras, V. Paulsen, Camb. 2002
Introduction to Hp spaces, P. Koosis, Camb. 1998

Conferences Attended

November 2015 **Virginia Operator Theory and Complex Analysis Meeting**, Washington and Lee University
May 2015 **Great Plains Operator Theory Symposium**, Purdue University
October 2014 **Wabash Miniconference**, UIPUI
April 2014 **AMS Sectional Meeting**, University of New Mexico
September 2013 **Wabash Miniconference**, UIPUI
September 2012 **Wabash Miniconference**, UIPUI
July 2012 **Frame Theory and Maps Between Operator Algebras**, TAMU
August 2012 **SUMIRFAS**, Texas A&M University
May 2011 **Great Plains Operator Theory Symposium**, Arizona State University
Jun 2008 **Great Plains Operator Theory Symposium**, University of Cincinnati
Sep 2006 **Lecture Series: Banach Algebras**, Middle East Technical University

Teaching

MATH 407 Advanced Calculus, Spring 2015, Fall 2016
MATH 301 Ordinary Differential Equations, Spring 2015, Fall 2016
MATH 415 Linear Algebra with Applications,
Spring 2012, Spring 2013, Spring 2014 (two sections)
MATH 286 Introduction to Differential Equations, Fall 2013, Fall 2014
MATH 213 Basic Discrete Mathematics, Fall 2013

Services

Refereed Journals: Journal of Functional Analysis, Houston Journal of Mathematics, Operators and Matrices, Bulletin of the Australian Mathematicla Society, Journal of Mathematical Analysis and Applications

Ph.D. Preliminary Exam Committee Member for Jian Liang, UIUC, Fall 2012.

Academic Achievements and Awards

- **Research Assistant** under NSF grant DMS-0600191 (Summer 2009, Spring 2010, Summer 2010, Fall 2010, Spring 2011)
- **Graduate Assistant Teaching Fellowship** for academic and teaching excellence, University of Houston, 2007-2011.
- **Graduate Research Fellowship**, Bilkent University, 2004-2007.
- **Undergraduate Scholarship**, Bilkent University, 1998-2004.

References

Dr. Vern I. Paulsen (*PhD Advisor*)

Department of Mathematics

University of Houston

673 PGH Houston, TX 77004 USA

☎ 713 743 3450

✉ vern@math.uh.edu

<http://www.math.uh.edu/~vern>

Dr. Zhong-Jin Ruan (*Research & Teaching*)

Department of Mathematics

University of Illinois UC

1409 W Green St Urbana, Illinois 61801

☎ 217 244-6305

✉ ruan@math.uiuc.edu

<http://www.math.uiuc.edu/~ruan>

Dr. David Kerr

Department of Mathematics

Texas A&M University

College Station, TX 77843 USA

☎ +1 979 845 6028

✉ kerr@math.tamu.edu

<http://www.math.tamu.edu/~kerr>