

## CURRICULUM VITAE

PRASAD SENESI

University of Ottawa

**PROFESSIONAL ADDRESS**

Department of Mathematics and Statistics  
 585 King Edward 204B  
 Ottawa, ON K1N 6N5  
 Canada

**LOCAL ADDRESS**

University of Ottawa  
 2 - 15 Lenore Place  
 Ottawa, ON K1L 7X8  
 Canada

**PERSONAL INFORMATION**

Born May 20, 1976  
 Los Angeles, California  
 USA

EDUCATION**Ph.D. in Mathematics**

June 2007

University of California, Riverside  
 Thesis Advisor: Professor Vyjayanthi Chari  
 Thesis Title: *Finite-Dimensional Representations of the Twisted Loop Algebras.*

**B.S. in Mathematics**, Minor in Astronomy  
 Missouri State University

May 2000

RESEARCH INTERESTS

*Primary:* Representation theory of Kac-Moody and infinite-dimensional Lie algebras

*Secondary:* Quantum groups, mathematical physics, applications of combinatorics, category theory, and algebraic geometry to representation theory

EMPLOYMENT

Postdoctoral Researcher.  
 University of Ottawa, January 2008 – present.

MANUSCRIPTS

*Finite-Dimensional Representations of the Twisted Loop Algebras.*  
 Ph.D. Thesis, University of California at Riverside, June 2007.

*Weyl Modules for the Twisted Loop Algebras.*  
 W/ V. Chari, and G. Fourier, J. Algebra 319 (2008), No. 12, 5016 – 5038.

*A block decomposition of finite-dimensional representations of twisted loop algebras.*  
 In submission, preprint available at math.RT/0807.4116.

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**PRESENTATIONS***Finite-Dimensional Representations of Twisted Loop Algebras.*

June 2008 at IMPA, Rio De Janeiro, Brazil.  
2008 joint meeting of the AMS-SBM.

*Representations of Twisted Loop Algebras and  $\sigma$ -equivariance.*

June 2008 at University of Sao Paulo, Brazil.

*Block Decompositions of Twisted Loop Representations.*

November 2007 at Pomona College, Pomona, California.

*Weyl Modules of Twisted Loop Algebras.*

April 2007 at University of Ottawa, Ottawa, Ontario, Canada.  
2007 Fields Institute Lie Algebra Workshop.

*Weyl Modules of Twisted Loop Algebras.*

November 2006 at Universitat Koln, Koln, Germany.

*Weyl Modules associated to  $A_2^2$ .*

May 2006 at Kansas State University, Manhattan, Kansas.  
Graduate Student Research Conference on Algebra and Representation theory.

*Twisted Affine Kac-Moody Algebras And Their Finite-Dimensional Representations.*

March 2006 at University of California, Riverside. Graduate Student Seminar.

*Weyl Modules of Twisted Loop Algebras.* (4 talks)

October 2005 at University of California, Riverside. Lie Theory Seminar.

*Finite-Dimensional Representations of  $sl_2$ .*

July 2005 at Missouri State University, Springfield, Missouri.

*Classification of Finite-Dimensional Simple Lie Algebras.*

July 2004 at Missouri State University, Springfield, Missouri.

*Checkerboard Graphs and Chirality of Link Diagrams in  $\mathbf{R}^2$  and  $S^2$ .*

October 2002 at University of California, Riverside. Topology Seminar.

*The Minkowski SpaceTime of Special Relativity.*

April 2000 at Missouri State University, Springfield, Missouri.

## CONFERENCES, WORKSHOPS

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Fields Institute Ottawa-Carleton Algebra Week.  
September 2008 at University of Ottawa and  
Carleton University, Ottawa, Ontario, Canada.

Joint Meeting of the AMS-SBM.  
June 2008 at IMPA, Rio De Janeiro, Brazil.

AMS Spring Western Section Meeting.  
May 2008 at Claremont McKenna College, Claremont, CA.

Fields Institute Lie Algebra Workshop.  
April 2007 at University of Ottawa, Ottawa, Ontario, Canada.

Oberwolfach Workshop on Representation Theory and  
Applications.  
November 2006 at MFO, Oberwolfach, Germany.

Graduate Student Research Conference on Algebra and  
Representation Theory.  
May 2006 at Kansas State University, Manhattan, Kansas.

Workshop on Lie Groups, Lie Algebras, and their Repre-  
sentations.  
February 2006 at University of California, Santa Barbara.

AMS Fall Western Sectional Meeting.  
November 2005 at Eugene, Oregon.

Representations of Kac-Moody Algebras and Combinatorics.  
March 2005 at BIRS, Canada.

Workshop on Lie Groups, Lie Algebras, and their Repre-  
sentations.  
January 2005 at MSRI, Berkeley, California.

AMS/MAA Joint Mathematics Meetings.  
January 2005 at Atlanta, Georgia.

AMS/MAA Joint Mathematics Meetings.  
January 2004 at Phoenix, Arizona.

Workshop on Lie Groups, Lie Algebras, and their Repre-  
sentations.  
March 2002 at University of California, Riverside.

Regional Workshop in Mathematics.  
February 1999 at Lincoln, Nebraska.

MAA Sectional Meeting.  
April 1999 at Rockhurst College, Kansas City, Missouri.

## TEACHING EXPERIENCE

### GRADUATE LEVEL:

Primary instructor for the algebra qualifier preparation seminar, 2005 and 2006, at UC Riverside.

### UNDERGRADUATE LEVEL:

Primary instructor for calculus and linear algebra, 2008, at University of Ottawa.

Primary instructor for calculus III in 2005 and Calculus I in 2007 at UC Riverside.

Teaching assistant for abstract algebra, number theory, linear algebra, optimization, discrete mathematics, calculus of several variables, integral and differential calculus, college algebra; 2002-present, at UC Riverside.

Primary instructor for college algebra, 2000-2001, At Missouri State University.

Co-founder and mentor for the Teaching Assistant Mentor program at University of California, Riverside, 2003 - present.

## AWARDS

Mathematics Teaching Assistant of The Year, 2004 –2005 academic year.

Teaching Assistant Fellowship, University of California, Riverside, September 2002 – June 2007.

## MEMBERSHIPS

American Mathematical Society, 2002 – present.

Golden Key Honor Society, Missouri State University, 1998.

Kappa Mu Epsilon Mathematics Honor Society, Missouri State University, 1995 – 1999.

## REFERENCES

### *Research:*

Dr. Erhard Neher, University of Ottawa.

Dr. Alistair Savage, University of Ottawa.

Dr. Vyjayanthi Chari, University of California, Riverside.

Dr. Jacob Greenstein, University of California, Riverside.

### *Teaching:*

Dr. Monica Nevins, University of Ottawa.

Dr. Albert Stralka, University of California, Riverside.