

Keith R. Ouellette

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Employment

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|---|---------------------|
| UCLA Extension Instructor | Sep 2011 – Present |
| University of California, Los Angeles Assistant Adjunct Professor | Jun 2011 – Aug 2011 |
| College of the Holy Cross Visiting Assistant Professor | Aug 2010 – Jun 2011 |
| University of California, Los Angeles PIC Assistant Adjunct Professor | Jul 2006 - Jul 2010 |

Education

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| Ph.D. Mathematics, UCLA Advisor: Jonathan Rogawski | Jun 2006 |
| M.A. Mathematics, UCLA | Jan 2001 |
| A.B. Mathematics, College of the Holy Cross <i>Concentration in Computer Science</i> | May 1999 |

Honors and Awards

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| United States Achievement Academy National Collegiate Mathematics Award | 2004 |
| Phi Beta Kappa | 1999 |
| Magna Cum Laude | 1999 |
| Pi Mu Epsilon, Massachusetts Beta Chapter | 1999 |

Research Interests

Automorphic Forms, Eisenstein Series, Representation Theory, Number Theory, Combinatorics

Research Articles

3. *On the Fourier inversion formula for reductive groups*
In preparation.

2. *On the Fourier inversion formula for the full modular group*
Representation Theory **15** (2011), pp.112-125

1. *Managing multiple medical image files and formats and conventions* (with S.C. Neu, D.J. Valentino, A.W. Toga), **Proceedings of the SPIE 5033** (2003), pp. 330-338.

Teaching Experience

I. Undergraduate Courses

A) at College of the Holy Cross

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| Calculus for the Social Sciences 2 (Math 126) | Spring 2011 |
| Calculus for the Physical and Life Sciences 2 (Math 132) | Spring 2011 |
| Calculus for the Social Sciences 1 (Math 125) | Fall 2010 |
| Calculus for the Physical and Life Sciences 1 (Math 131) | Fall 2010 |

B) at University of California, Los Angeles

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| Complex Analysis for Applications (Math 132) | Summer 2011 |
| Linear Algebra with Applications (Math 33A) | Summer 2010 |
| Integration and Infinite Series (Math 31B) | Fall 2009 |
| Differentiable and Integral Calculus (Math 31A) | Summer 2009 |
| Real Analysis (Math 131) | Summer 2008 |
| Algebra for Applications (Math 117) | Fall 2007 |
| Algebra (Math 110A) | Summer 2007 |
| Introduction to Programming C++ (PIC 10A) | Spring 2007 |
| Principles of Java Programming (PIC 20A) | 2007-2010 |
| Introduction to Internet Programming (PIC 40A) | 2006-2010 |

II. Graduate Courses at UCLA

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| Graduate Seminar in Number Theory | Winter 2007 |
| Graduate Seminar in Number Theory | Spring 2007 |

III. TA Discussion Sections at UCLA

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| Calculus of Several Variables (Math 32A) | Fall 2005 |
| Differential Geometry (Math 120A) | Fall 2005 |
| Complex Analysis for Applications (Math 132) | Summer 2005 |
| Combinatorics (Math 113) | Winter 2005 |
| Calculus and Probability for the Life Sciences (Math 3C) | Fall 2004 |
| Linear Algebra (Math 115A) | Fall 2004 |
| Introduction to Programming C++ (PIC 10A) | |
| Intermediate Programming C++ (PIC 10B) | |
| Advanced Programming C++ (PIC 10C) | |
| Principles of Java Programming (PIC 20A) | |
| Advanced Aspects of Java with Applications (PIC 20B) | |
| Introduction to Internet Programming (PIC 40A) | |

Mentoring

Honors Contract (PIC 89HC), UCLA

Spring 2009

Advised two undergraduate students towards developing their own Java and Web applications which create, display, edit, save, and retrieve a person's "train of thought" as a tree.

Presentations

- On the Fourier inversion theorem for the full modular group
AMS Eastern Sectional Meetings Special Session
College of the Holy Cross, Worcester, MA. Apr 2011
- On the Fourier inversion theorem for $PGL(2, \mathbb{Q}_p)$
Math Department Faculty Seminar
College of the Holy Cross, Worcester, MA. Mar 2011
- On the Fourier inversion theorem for the full modular group
Math Department Faculty Seminar
College of the Holy Cross, Worcester, MA. Oct 2010
- On the Fourier inversion formula for reductive groups
22nd Annual Workshop on Automorphic Forms and Related Topics
Texas A&M University, College Station, TX. Mar 2008
- The Fourier inversion formula for the continuous spectrum of $L^2(G(F)\backslash G(A))$
AMS-MAA Joint Mathematics Meetings
San Antonio, TX. Jan 2006
- A new proof of the Fourier inversion formula for $SL(2, \mathbb{Z}) \backslash \mathbb{H}$
West Coast Number Theory Conference
Pacific Grove, CA. Dec 2005
- A new proof of the Plancherel formula in the adèlic setting
UCLA Number Theory Seminar
Los Angeles, CA. Dec 2005
- The Fourier inversion formula for the continuous spectrum of $L^2(\Gamma \backslash G / K)$
Dartmouth College Number Theory Seminar
Hanover, NH. Aug 2005

Service

- Participant in the Holy Cross Battle of the Departments Spring 2011
Co-organizer of a Special Session for AMS Eastern Sectional Meetings Spring 2011
Co-moderator of the Holy Cross Math/CS Club Fall 2010
Moderator of weekly HC Math Department Tea and Games Fall 2010
Co-organizer of the UCLA Number Theory Seminar Spring 2010

Skills

- Mathematical Software: LaTeX, Maple
Programming Languages: C++, Java, XML, XHTML, JavaScript, Perl, PHP

Professional Affiliations

UCLA Number Theory Group
American Mathematical Society
American Mathematical Association

References

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| 1. Jonathan Rogawski, Professor | jonr@math.ucla.edu |
| 2. Bill Casselman, Professor | cass@math.ubc.ca |
| 3. Don Blasius, Professor | blasius@math.ucla.edu |
| 4. Robert Brown, Professor (teaching) | rfb@math.ucla.edu |
| 5. Catherine Roberts, Professor and Chair (teaching) | croberts@holycross.edu |