

# **Yuval Z. FLICKER**

## **BIOGRAPHICAL SKETCH, Feb. 2015**

### **I. Personal Data**

Birth: Jan. 3, 1955, Kfar Saba

Married, four children

Citizenship: USA, Israel.

### **1. Appointments, Education**

The Ohio State University, Professor	1987-2015
Harvard University, Visiting Faculty	1985-1987
Princeton University, Assistant Professor	1981-1985
Université de Paris VII and IHES, Visitéur	1981
Columbia University, Assistant Professor	1979-1981
Institute for Advanced Study, Member	1978-1979
Ph.D.: Cambridge University, UK, Supervisor: Alan Baker	1974-1978
Thesis Title: Linear forms on abelian varieties over local fields	
M.A: Hebrew University, Math	1973-1974
B.A.: Tel-Aviv University, Math & Philosophy	1971-1973

### **2. Research Interests**

Number Theory, Representation Theory, Arithmetic Geometry. Automorphic and Admissible Representations, Lifting of Representations, Covering Groups, Shimura Varieties, Automorphic forms over function fields, Hecke-Iwahori algebras,  $p$ -adic automorphic forms, Galois Cohomology, Local-Global Principles, Motives, Algebraic Groups.

### **3. Longer Visits**

Humboldt Universität, Berlin; Humboldt Stiftung	July 2014
University of Amsterdam	April 2014
Tata Institute, Mumbai (India; ICERM Grant)	Jan.-Feb. 2014
Hebrew University, Jerusalem; Schonbrunn Visiting Professorship	October 2013-May 2014
University of Tokyo, visiting Professorship	September 2013
Simons Fellowship in Mathematics #267097	2013-2014
University of Erzincan, Turkey; TUBITAK Fellowship	June-August 2013

Hebrew University, Jerusalem	December 2012
Weizmann Institute, Rehovot	August 2012
University of Erzincan, Turkey; TUBITAK Fellowship	May-August 2012
University of Bielefeld (Germany)	December 2011
Humboldt Universität, Berlin; Humboldt Stiftung	June-Sept 2011
IAS, Princeton	March 20-25, 2011
Hebrew University (Jerusalem)	Jan.-March 2011
University of Bielefeld (Germany)	December 2010
University of Buenos Aires, Fulbright	June-August 2010
University of Bielefeld (Germany)	December 2009
University of Bielefeld (Germany)	July-August 2009
Max-Planck-Institut für Math, Bonn	June-July 2009
Hausdorff Institute of Math, Bonn	March-April 2009
Tel-Aviv, Bar-Ilan, Ben-Gurion Universities	December 2008
Max-Planck-Institut für Math, Bonn	Sept 2008
Humboldt Universität, Berlin	August 2008
IHES, Paris	June-July 2008
Tel-Aviv University	May 2008
Max-Planck-Institut für Math, Bonn	July-Sept 2007
Universität zu Köln, Humboldt Stiftung	June 2007
Universität Essen, Humboldt Stiftung; MPIM-Bonn	June-Sept 2006
Universität zu Köln, Humboldt Stiftung	June-August 2005
Max-Planck-Institut für Math, Bonn	July-Sept 2004
Hebrew University, Lady Davis visiting Professorship	Jan.-March 2004
Max-Planck-Institut für Math, Bonn	June-Sept 2003
Chinese Academy of Science, Beijing	Summer 2002
Humboldt Universität, Berlin	June 2001
University of Bielefeld, Sonderforschungsbereich 343	June-August 2000
National University of Singapore, Senior Fellowship	June-Dec. 1999
University of Bielefeld, Nato Collaborative Grant	August 1998
University of Münster, DAAD Scholarship	June-July 1998
University of Mannheim, Humboldt Stiftung	Summer 1997
Tata Institute, Mumbai; Tel-Aviv University,	Winter 1996
University of Mannheim, Humboldt Stiftung	Summer 1996
Tata Institute, Mumbai; Tel-Aviv University,	Winter 1995
University of Mannheim, Humboldt Stiftung	Summer 1995
University of Tokyo, visiting Professorship	Spring 1995
University of Mannheim, DAAD Scholarship	Summer 1994
University of Santiago, Chile, NSF Grant-Americas Program	Winter 1994
Tel Aviv University	Fall 1993
Tata Institute, NSF Grant INT; Santa Barbara	Summer 1992
IAS at Hebrew University; Tel Aviv University	Winter 1992
Tata Institute, Bombay, NSF Grant INT	Winter 1991

Kyoto ICM, AMS Grant	Summer 1990
Hebrew University, Jerusalem	Autumn 1989
IHES, Paris	Summer 1988
IHES, Paris	Summer 1987
MSRI, Berkeley	Summer 1986
Bar-Ilan and Tel-Aviv Universities	Summer 1985
Hebrew University, Jerusalem	Summer 1983
IHES, Paris	Summer 1982
IHES, Paris	Summer 1981
Université de Paris VII	Summer 1980

## II. Contribution to Teaching at the Ohio State University

### 1. Graduate Students

Michael Belfanti, current

Martin Nikolov: Thesis: May 2008. First Post-Doc position: University of Connecticut.

Ping-Shun Chan: Thesis: December 2005. First Post-Doc position: MPIM-Bonn.  
Second Post-Doc position: University of California San-Diego.

Dmitrii Zinoviev: Researcher at the Institute of Problems in Information Transmission,  
Academy of Science, Moscow.

Jennifer Orlich, Master thesis: Spectral Sequences.

### 2. Undergraduate (including regular teaching assignments)

Spring Semester 2015:	Math 2568	Linear Algebra
Autumn Semester 2014:	Math 4580	Abstract Algebra
Autumn Semester 2012:	Math 4580	Abstract Algebra
Winter Quarter 2012:	Math 581	Ring theory
Autumn Quarter 2011:	Math 507	Hyperbolic geometry
Autumn Quarter 2011:	Math 582	Fields and Galois theory
Spring Quarter 2011:	Math 132 (2)	Calculus
Autumn Quarter 2010:	Math 507	Hyperbolic geometry
Winter Quarter 2010:	Math 581	Ring theory
Winter Quarter 2010:	Math 580	Group theory

Autumn Quarter 2008:	Math 366 (2)	Proof theory
Autumn Quarter 2008:	Math 150	Calculus
Winter Quarter 2008:	Math 581	Rings and modules theory
Winter Quarter 2008:	Math 415 (2)	Differential equations
Autumn Quarter 2007:	Math 580	Group theory
Autumn Quarter 2007:	Math 131	Calculus
Winter Quarter 2007:	Math 131	Calculus
Autumn Quarter 2005:	Math 255	Differential equations
Autumn Quarter 2005:	Math 150	Calculus
Winter Quarter 2005:	Math 132	Calculus
Autumn Quarter 2004:	Math 104 (2)	Precalculus
Spring Quarter 2004:	Math 568 (2)	Linear algebra
Autumn Quarter 2003:	Math 568	Linear algebra
Winter Quarter 2002:	Math 571 (2)	Linear algebra
Autumn Quarter 2002:	Math 568 (2)	Linear algebra
Autumn Quarter 2002:	Math 153	Calculus
Autumn Quarter 2001:	Math 530	Probability
Autumn Quarter 2001:	Math 104	Precalculus
Winter Quarter 2001:	Math 568	Linear algebra
Winter Quarter 2001:	Math 131	Calculus
Autumn Quarter 2000:	Math 568	Linear algebra
Winter Quarter 2000:	Math 151	Calculus
Winter Quarter 1999:	Math 255 (2)	Differential equations
Autumn Quarter 1998:	Math 161 (2)	Calculus
Winter Quarter 1998:	Math 152	Calculus
Autumn Quarter 1997:	Math 568	Linear algebra
Summer Quarter 1997:	Math 568	Linear algebra
Winter Quarter 1997:	Math 255	Differential equations
Autumn Quarter 1996:	Math 568	Linear algebra
Winter Quarter 1996:	Math 162	Calculus
Autumn Quarter 1995:	Math 132 (2)	Calculus
Winter Quarter 1995:	Math 131	Calculus
Autumn Quarter 1994:	Math 132 (2)	Calculus
Winter Quarter 1994:	Math 132	Calculus
Autumn Quarter 1993:	Math 131 (2)	Calculus
Summer Quarter 1993:	Math 568	Linear algebra
Winter Quarter 1993:	Math 255 (2)	Differential equations
Autumn Quarter 1992:	Math 131	Calculus
Autumn Quarter 1992:	Math 254, Math 512	Differential equations
Summer Quarter 1992:	Math 569	Linear algebra
Autumn Quarter 1991:	Math 132, Math 254 (2)	Calculus
Summer Quarter 1991:	Math 512	Differential equations
Spring Quarter 1991:	Math 131	Calculus
Spring Quarter 1991:	Math 255 (2)	Differential equations

Autumn Quarter 1990:	Math 132, Math 153 (2)	Calculus
Summer Quarter 1990:	Math 366	Proof theory
Autumn Quarter 1989:	Math 131 (2)	Calculus
Autumn Quarter 1989:	Math 131N	Calculus
Summer Quarter 1989:	Math 568	Linear algebra
Winter Quarter 1989:	Math 568 (2)	Linear algebra
Spring Quarter 1988:	Math 150	Calculus
Winter Quarter 1988:	Math 152 (2)	Calculus
Autumn Quarter 1987:	Math 131 (2)	Calculus

### 3. Graduate

Autumn Semester 2014:	Math 8160	The trace formula
Spring Semester 2013:	Math 8160	The trace formula
Autumn Semester 2012:	Math 7161	Lie Algebras
Winter Quarter 2012:	Math 983	Elliptic modules
Spring Quarter 2011:	Math 981	Representation Theory
Winter Quarter 2010:	Math 970	Eisenstein Series
Autumn Quarter 2009:	Math 840	Algebraic Geometry
Autumn Quarter 2009:	Math 857	Functional Analysis
Winter Quarter 2009:	Math 771	Rings and Modules
Winter Quarter 2007:	Math 671	Rings and Modules
Autumn Quarter 2006:	Math 670	Group Theory
Winter Quarter 2006:	Math 981	<i>p</i> -adic Automorphic Forms
Winter Quarter 2005:	Math 981	<i>p</i> -adic Automorphic Forms
Autumn Quarter 2003	Math 983	Automorphic Representations
Winter Quarter 2002:	Math 771	Rings and Modules
Winter Quarter 2001:	Math 982	Etale Cohomology
Autumn Quarter 2000:	Math 860	Algebraic Topology
Spring Quarter 2000:	Math 772	Algebra: Field Theory
Winter Quarter 2000:	Math 771	Algebra: Rings and Modules
Winter Quarter 1999:	Math 982	Perverse Sheaves with Applications
Winter Quarter 1998:	Math 841	Derived Categories and D-Modules
Autumn Quarter 1997:	Math 840	Algebraic Geometry
Winter Quarter 1997:	Math 970	Motives and Tannakian Formalism
Autumn Quarter 1996:	Math 970	Derived Categories
Winter Quarter 1996:	Math 970	Homogeneous spaces
Autumn Quarter 1995:	Math 970	Hasse principle
Winter Quarter 1995:	Math 970	Galois cohomology

Autumn Quarter 1994:	Math 970	Galois cohomology
Spring Quarter 1994:	Math 893	Representation Theory
Winter Quarter 1994:	Math 841	Algebraic Geometry
Autumn Quarter 1993:	Math 893	Representation Theory
Autumn Quarter 1993:	Math 840	Algebraic Geometry
Winter Quarter 1993:	Math 693	Automorphic Forms
Autumn Quarter 1992:	Math 693	Automorphic Forms
Summer Quarter 1992:	Math 693	Automorphic Forms
Spring Quarter 1992:	Math 970	Representation Theory, Hopf Algebras
Spring Quarter 1990:	Math 975	Algebraic Geometry
Winter Quarter 1990:	Math 975	Algebraic Geometry
Spring Quarter 1989:	Math 874	Symmetric Functions, Hall Polynomials

### **III. Committee Service (department, university, college, year(s))**

Actuarial Advising 2011-2015  
 IIEC-PROCOMP 2011-2015  
 Undergraduate Advising 2011-2015  
 Undergraduate Recruitment 2011-2015  
 Advisor for several incoming graduate students 2011-2015  
 COPE - University Senate Council on the Physical Environment, 2006-2009  
 Arithmetic Geometry Seminar organizer, 1997-  
 Rigid Analytic Geometry Seminar organizer, 2006-2007  
 Colloquium Committee 1996-97  
 Colloquium Committee Chair 1998-99, 2004-05  
 Math 255 Textbook Selection Committee 1992-93  
 Math 255 Coordinator 1992-2005  
 Math 415 Coordinator 2003-2006  
 Math 580 Coordinator 2006-2007  
 University Building and Space Committee 2006-2009  
 Computer Committee 1992-94, 97-98  
 Graduate Admissions 1992-94  
 Hiring Committee 1993-94  
 Tenure and Promotion 1993-95  
 Teaching Evaluation 1993-2009  
 OSHA Coordinator 1999 - 2003  
 Tenure and Promotion 1999-2001  
 Library Committee 2003-2006  
 TangoOSU faculty advisor 2004-2013.  
 ATCO (Argentine Tango in Columbus, Ohio) faculty advisor 2008-2015.  
 Zionist Alliance student organization: Faculty advisor (one year)  
 Taekwondo/Hapkido student club: Faculty advisor (one year)

### **IV. Consulting Activities**

1. Journal referring:

Various Conference Proceedings  
 Compositio Mathematicae  
 Canadian Journal of Mathematics  
 Communications in Algebra  
 Inventiones Mathematicae  
 Israel Journal of Mathematics  
 Journal d'Analyse Mathematique  
 Journal für die reine und angewandte Mathematik  
 Memoirs of the American Mathematical Society  
 Proceedings of the American Mathematical Society  
 Transactions of the American Mathematical Society

2. Reviewing for Zentralblatt (often)
3. Reviewing for Math. Reviews
4. Book referring for the AMS
5. Examiner in PhD oral Exams
6. Examiner in Ph.D. defense in other departments at OSU
7. Recommendation letters, evaluation letters for hiring and promotion
8. Consultation and Collaboration
9. Examiner in Ph.D. defense in other universities

**V. Invited Talks (title, place, date)**

Two talks, Humboldt Universität Berlin, July 2014.  
 Representation theory seminar, Univ. of Amsterdam, April 2014.  
 Colloquium, TIFR Mumbai, January 2014.  
 Series of lectures, TIFR Mumbai, January 2014.  
 Series of lectures, University of Tokyo, September 2013.  
 Plenary lecture in Algebra section, Annual meeting of the Japan Math. Society, Ehime, Sept. 2013  
 Series of lectures, Erzincan University, June-July 2013  
 Colloquium, Ariel University, December 2012.  
 Colloquium, Erzincan University, July 2012.  
 Number Theory Seminar, Bielefeld University, December 2011.  
 Number Theory Seminar, Humboldt-Uni Berlin, June 2011.  
 "Panoramic" talk at the V Encuentro Nacional de Álgebra, La Falda, Córdoba, August 9, 2010  
 Colloquium, University of Indiana, Bloomington, April 16, 2010.  
 Algebra seminar, University of Indiana, Bloomington, April 16, 2010.  
 Borovoi Seminar, Tel-Aviv University, December 2009.  
 Algebra Seminar, Bar Ilan University, December 2009.  
 Number Theory Seminar, Ben Gurion University, December 2009.

Final Conference on Fundamental Groups in Arithmetic Geometry, Special Year at the Newton Institute, University of Cambridge UK, December 2009.  
 Number Theory Seminar, Humboldt-Uni Berlin, December 2009.  
 Special Talk, Institute for Advanced Studies, Princeton, December 2009.  
 Number Theory Seminar, University of Cambridge UK, March 2009.  
 Number Theory Seminar, Ben Gurion University, December 2008.  
 Algebra Seminar, Bar Ilan University, December 2008.  
 Number Theory Seminar, Humboldt-Uni Berlin, August 2008.  
 Number Theory Seminar, University of Tel Aviv, May 2008.  
 Number Theory Seminar, University of California San Diego, April 2008.  
 p-adic modular forms seminar, University of California San Diego, April 2008.  
 Number Theory Seminar, Tel-Aviv University, December 2006.  
 Number Theory Seminar, Humboldt-Uni Berlin, July 2006.  
 Colloquium, Universität Wien, November 2005.  
 Algebra Seminar, Hebrew University, December 2004.  
 Number Theory Seminar, Ben Gurion University, December 2004.  
 Number Theory Seminar, Haifa University, December 2004.  
 Lie Groups Seminar, Yale University, September 20, 2004.  
 Number Theory Seminar, MPI Bonn, July 2004.  
 Number Theory Seminar, Grenoble, France, March 24, 2004.  
 Colloquium, EPFL, Lausanne Switzerland, March 19, 2004.  
 Number Theory Seminar, Hebrew University, March 2004.  
 Colloquium, Ben Gurion University, March 2004.  
 Algebraic Geometry Seminar, Tel Aviv University, December 2003.  
 Number Theory Seminar, MPI Bonn, July 2003.  
 Number Theory Seminar, Köln, June, 2003.  
 Colloquium, Saarbrücken, July 2003.  
 Arbeitstagung conference in Bonn, Germany, June 2003.  
 Oberseminar (Colloquium), MPI Bonn, May 2003.  
 Hebrew Univ., Jerusalem, Number Theory seminar, Jan. 2, 2003.  
 Tel Aviv Univ, Algebraic Geometry Seminar, 3 talks, Dec., 2002.  
 ETH Zürich Number Theory seminar, Dec. 13, 2002.  
 Princeton Number Theory seminar, Dec. 12, 2002.  
 ICM Satellite conf on Number Theory, Weihai, August 2002.  
 Academy of Science, Beijing, series of 2 talks of 2 hours each, August 2002.  
 Tel Aviv Univ., Bernstein's seminar, series of 4 talks, June 2002.  
 Humboldt Univ. Berlin, Series of 3 talks of 2 hours each, May 2002.  
 Number Theory Seminar, Hebrew University, January 2002.  
 Algebraic Geometry Seminar, Tel Aviv University, December 2000.  
 Lie Groups Seminar, University of Michigan, October 2000.  
 Algebra Seminar, Michigan State University, October 2000.  
 Colloquium, Bielefeld Universität, July 2000.  
 Algebra Seminar, Universität Duisburg, July 2000.  
 Closing conference of Sonderforschungsbereich 343, Bielefeld, June 2000.

- Colloquium, Humboldt Universität Berlin, June 2000.
- Algebraic Geometry Seminar, Tel Aviv University, March 2000.
- Orbital integrals and perverse sheaves, ICM Satellite conference Algebraic Groups and Related Structures, Bielefeld, August 1998.
- Local-global principle for principal homogeneous spaces associated to motives, Number Theory Seminar, OSU, October 1997.
- Local-global principle for principal homogeneous spaces associated to motives, Gentner-Symposium on Field Arithmetic, Tel Aviv Univ., October 1997.
- Grothendieck's theorem on non abelian  $H^2$  and local-global principles, Group Cohomology Seminar OSU, March 1997.
- Grothendieck's theorem on non abelian  $H^2$  and local-global principles, Tel Aviv algebraic geometry, January 1997.
- Stabilizing the trace formula, Tata Inst. Fundamental Research, Mumbai, December 1996.
- The fundamental lemma in the theory of automorphic forms, series of lectures, Tata Inst. of Fundamental Research, Mumbai, December 1996.
- An elementary proof of a fundamental lemma, Representation Seminar, OSU, April 1996.
- Automorphic forms with nonzero periods, Kobe number theory seminar, December 1995.
- The fundamental lemma for orbital integrals on  $GL(4)$  and  $GSp(2)$ , Automorphic Forms on Algebraic Groups, RIMS, Kyoto, December 1995.
- Representations of multiplicative groups of division algebras, American Math. Soc. Summer Institute, Santa Barbara, July 1992.
- On the restriction of a representation to a subgroup and zeroes of L-functions, Number Theory Seminar OSU, January 1992.
- Cyclic automorphic forms on a unitary group, Inst. Advanced Study, Hebrew Univ., Jerusalem, January 1992.
- Fourier summation formula for the symmetric space  $PGL(n)/GL(n-1)$ , Tel-Aviv Univ., December 1991.
- Distinguished representations and zeros of L-functions, Bar-Ilan, December 1991.
- Drinfeld moduli schemes and automorphic forms, Conference on Arithmetic of Function Fields, OSU, June 1991.
- The adjoint representation L-function, SPIC Institute of Math. Sciences, Madras, February 1991.
- The adjoint representation L-functions, Tata Institute of Fundamental Research, Bombay, 1991.
- Fourier trace formula, Tata Institute of Fundamental Research, Bombay, February 1991.
- Distinguished representations, Tata Institute of Fundamental Research, Bombay, February 1991.
- Geometric representation theory, Séminaire Groupes réductifs et formes automorphes, Univ. Paris VII, Paris: June 1988.
- Endoscopic lifting from  $GL(m, E)$  to  $GL(n, F)$ , special year workshop on automorphic forms, Hebrew Univ., Jerusalem: May 1988.
- Simple trace formula, Univ. Paris VII: July 1987.
- Geometric Ramanujan Conjecture and Drinfeld Reciprocity Law, Selberg Symposium, Oslo, Norway: June 1987.

- Simple trace formula, Harvard University Representation Theory Seminar: March 1987.
- Geometric Ramanujan Conjecture, Harvard University Number Theory Seminar: February 1987.
- Nonabelian class field theory, Hebrew University Colloquium: January 1987.
- On Drinfeld's Reciprocity Law and Elliptic Modules, Tel-Aviv University: January 1987.
- Twisted tensors and Euler products, Northwestern University seminar: March 1986.
- Automorphic forms on unitary groups, Harvard University Number Theory Seminar: February 1986.
- On the symmetric-square, Stanford Colloquium: May 1986.
- Metaplectic correspondence, OSU hiring talk: February 1985.
- Metaplectic correspondence, Hebrew University Colloquium: January 1985.
- Unitary quasi-lifting, Conference at Bowdoin College, Maine: August 1984.
- Automorphic forms and class field theory, sequence of lectures at Hebrew Univ. Jerusalem: May-June 1982.
- On the Ramanujan conjecture and zeta functions for  $U(3)$ , Hebrew University Jerusalem, Colloquium: January 1982.
- Shimura varieties and the Ramanujan conjecture for  $U(3)$ , Tel-Aviv Univ. Colloquium: January 1982.
- On the symmetric square, Vancouver conference on Shimura varieties and automorphic forms: August 1981.
- The adjoint lifting, Dijon conference on automorphic forms: March 1980.
- The adjoint lifting from  $SL(2)$  to  $PGL(3)$ , Séminaire théorie de nombres, Paris: February 1980.
- Automorphic forms on the metaplectic group, Univ. Paris VII, groupe d'étude théorie de représentations: April 1979.
- Transcendental numbers and abelian varieties, Conference at Ecole Polytechnique: April 1979.
- Automorphic forms on the metaplectic group, Institute for Advanced Study Colloquium: March 1979.
- Automorphic forms on covering groups of  $GL(2)$ , Number theory sem., Columbia Univ.: February 1979.
- Automorphic forms on metaplectic groups, Institute for Advanced Study workshop, four talks: January-February 1979.
- Linear forms in logarithms on abelian varieties, Cambridge Univ., UK, arithmetic seminar: May 1978.