Curriculum Vitæ of Henri A. Gillet

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601 South Morgan, 2731 UH
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Education

Ph.D.	1978	Harvard University
B.Sc.	1974	University of London, Kings College

Employment

2009-	Interim Dean, Graduate College	Univ. of Illinois at Chicago
1996-2001	Head, Dept. M.S.C.S.	Univ. of Illinois at Chicago
1994-1996	Interim Head, Dept. M.S.C.S.	Univ. of Illinois at
Chicago 1988-present	Professor	Univ. of Illinois at Chicago
Fall 1987	Member	Institute for Advanced Study Princeton
1986-88	Associate Professor	Univ. of Illinois at Chicago
Spring 1985	Professeur Associé	Univ. of Paris-Sud, Orsay
1984-1986	Assistant Professor	Univ. of Illinois at Chicago
1983-84	Vis. Lecturer	Univ. of Penn.
1981-84	Assistant Professor	Princeton Univ.
1978-81	Instructor	Princeton Univ.

Professional Honors

Clay Senior Scholar, September 1 - November 30, 2008

45 minute address in the number theory section at the International Congress of Mathematicians, Kyoto, Aug. 1990.

University Scholar, 1989-92.

A.P. Sloan Foundation Fellowship, Sept. 1986-Sept 1989.

Hour speaker, May A.M.S. Meeting, Chicago, May 1989.

Other Recognition

Thomson ISI highly cited researcher

Visiting memberships and other invited visits

I.H.E.S. Paris, May 13 – June 11, 2009.

Fields Institute, Toronto, September 8 – December 8, 2008.

I.H.E.S. Paris, June 7 – June 21, 2008

I.H.E.S. Paris, May 2007

Tata Insitute for Fundamental Research, Mumbai, November 15 – December 15, 2006

Special Year on Arakelov Theory and Shimura Varieties, Centre de Recerca Matemàtica, Barcelona, Fall 2005.

Isaac Newton Institute for the Mathematical Sciences, University of Cambridge, Spring 1998.

University of Chicago, AY 97-98.

I.H.E.S., Paris during April 1988.

Institute for Advanced Study, Fall 1987.

I.H.E.S., Paris, July 1986.

I.H.E.S., Paris, April-May 1985.

Graduate Student Supervision

Mathew Wechter, 2009 – present.

Ben Antieau, 2006 – present.

Liqing Wang, “The Constructibility Theorem for Differential Modules”, 2003-2008 Ph.D., 2008.

Fatih Unlu, “On Explicit Representations of the Grothendeick Fundamental Class”, 1998 - 2004, Ph.D. 2004.

J. Hu, “Deformation to the normal cone in Arakelov Theory”, 1995-1999,Ph.D. 1999.

Mike Paluch, “Algebraic and Topological K-theory”, 1986-1991, Ph.D. 1991.

K. Ganesan, “Serre-Tate theory of ordinary $K-3$ surfaces”, 1985-88, Ph.D. 1988.

Professional Activities

Co-Chair, Organizing Committee, Workshop on Arithmetic Geometry: Diophantine approximation and Arakelov theory, Fields Institute, Toronto, October 20-24, 2008.

Organizer, Great Lakes K-theory XI meeting at UIC, Saturday and Sunday April 22 and 23, 2006.

Editor, Illinois Journal of Mathematics, 2003–2007.

American Mathematical Society Council, 2002–2005.

Chair, AMS Council Subcommittee on creation of a Fellowship Program 2003–2005.

AMS Committee on the Profession 2002–2005.

Organizing Committee of Graduate Student Workshop on Algebraic Stacks and Computational Algebraic Geometry, held at U.I.U.C., June 11-15, 2002.

Associate Editor, American Journal of Mathematics, 1999–2003.

Editor, American Journal of Mathematics, 1994–99.

Editor, International Mathematics Research Notices, 1995–98.

Scientific Committee, 1997 AMS Summer Research Conference on Algebraic K–theory.

Co-Organizer (with Lawrence Ein), Chicago-Los Angeles-Salt Lake City Algebraic Geometry Conference, October 1996.

External Review, Purdue Univ., Math Dept., 1996.

NSF Panel on Algebraic Geometry, 1996, 2002, 2004, 2007.

NSF Panel on Group Infrastructure Grants, 1996.

Organizing Committee, 1995 AMS Summer Institute on Algebraic Geometry.

Representative of the American Journal of Mathematics on the Council of the American Mathematical Society, 1994-95.

Secretary and member of the board of directors of the Friends of Kings College, London, 1984-89.

Organizer of Special Session on Arithmetic Geometry and Intersection Theory at the Spring meeting of the American Mathematical Society, at Loyola University, Chicago, May 1989.

Organizer of Special Session on Algebraic K-Theory at Spring Meeting of the American Mathematical Society, UIC, Chicago, March 1984.

Administrative and Committee Service

University

University of Illinois Senates Conference, 2008–
LAS executive Commmittee, 2008–
UIC Senate Executive Committee, 2006–
Ad-hoc UIC SEC subcommittee to review Chancellor, 2007
SURS Members Advisory Commitee, 2007–
Consultative committee to assist in the selection of a President, 2004.
UIC Senate
Camus Promotion and Tenure Committee 2001–2004.
Chair of Chemistry Department Review, 2000–2001.
Chancellor Search Advisory Committee to the President of the University, 2000
Physics Department Head Search Committee, 1998
Task Force on Salary Issues, Subcommittee of the Senate Executive Committee, 1996–97
Committee on campus wide coordination of statistics, 1995–1997
Vice-Chancellor for Research Search Committee, 1994–95
M.S.C.S. Head Search, 1994
Review of Physics Dept. Head, 1990–91

Department

Advisory Committee, 2005–2007, 2008–2010
Tenure Track Search Committee, 2004–2006, 2007–2008 (Chair)
Research Assistant Professor Search Committee, 2006–2007
Graduate Studies Committee, 2004–
Admissions, Fellowships, Assistantships Committee, 2005–2008
Undergraduate Math Club Advisor, 2003–2004
Salary Committee (appointed), 1994
Colloquium Chair, 1993–94
Pure Mathematics Committee, 1991–92
Advisory Committee, 1990–91
Salary Committee (appointed), 1989
Faculty Appointments Committee, 1989–91
Graduate Studies Committee, 1987–88
Undergraduate Studies Committee, 1985–86
Advisory Committee (elected), 1985–87
Library Committee, 1986–87

Talks Presented at Professional Meetings

"Universal cycle classes", Session on Algebraic Geometry, A.M.S. Meeting, New York, Apr. 1979.

"Riemann Roch for higher K-theory", (1 hour talk) Evanston K-theory Conf., March 1981.

"K-theory and Chow groups of singular surfaces", Topology Conf., Univ. of Western Ontario, June 1981.

"K-theory of twisted complexes", Special Session on K-theory, A.M.S. Meeting, Bryn Mawr, April 1982.

"K-theory of simplicial schemes", (1 hour talk) K-theory Conf., Univ. of Bielefeld (W. Germany), July 1982.

"Intersection theory on moduli spaces", U.S.-France K-theory Conf., Luminy, France, May 1983.

"Applications of K-theory to intersection theory", NSF-CBMS Conf. on Intersection Theory, Fairfax, Va., June 1983.

"K-theory of Hensel local rings", A.M.S. Summer Conf. on K-theory, Boulder, Col., June 1983.

"New progress on Gersten's conjecture", (1 hour talk) K-theory Conf., Oberwolfach, May 1984.

Took part in panel discussion on K-theory at the Conf. on Operator Algebras at the Math. Sciences Research Institute, Berkeley, Aug. 1984.

"Intersection theory on Arakelov varieties", Special Session on Algebraic Geometry, A.M.S. Meeting, Minneapolis, Nov. 1984.

"A Leibnitz formula for higher K-theory", Special Session on Algebraic K-Theory, A.M.S. Meeting, Chicago, March 1985.

"K-theory and intersection theory on arithmetic varieties", (1 1/4 hr. expository lecture), A.M.S. Summer Institute on Algebraic Geometry, Bowdoin, Me., July 1985.

"Arakelov intersection theory in higher dimensions", (series of three 1 hour talks), A.M.S. Summer Research Conf. on Arithmetical Algebraic Geometry, Arcata, Calif., Aug. 1985.

"Looping the $\mathbf{Q}$ construction", Special Session on K-theory, Canadian Math. Soc. Winter Meeting, Calgary, Alberta, Dec. 1985.

"K-theory of Hermitian holomorphic bundles", talk in Karoubi's K-theory seminar at the International Congress of Mathematicians, Berkeley, Aug. 1986.

"K-theory and the vanishing of intersection multiplicities", Commutative Algebra Conf., Urbana, Oct. 1986.

"$\mathbf{Q} + \mathbf{Q}\tau$. trees II", Special Session on Geometric Methods in Group Theory, A.M.S. Annual Meeting, San Antonio, Jan. 1987.

"Arithmetic intersection theory", two talks at U.S.-Japan K-theory Conf., East-West Center, Honolulu, Hawaii, Jan. 1987.

"Trees, foliations and continued fractions", Midwest Topology Conf., U.I.U.C., Feb. 1987.

"K-theory and algebraic geometry", series of 7 lectures at I.C.P.A.M./A.M.U. Summer School on K-theory and its applications, Univ. of Ibadan, Ibadan, Nigeria, July 29-Aug. 7, 1987.

"Characteristic classes for higher algebraic K-theory", Conf. on Regulators, Luminy, France, July 1987.

"Arithmetic intersection theory and differential characters", plenary talk at K-theory Conf., Lake Louise, Dec. 1987.

"Analytic torsion and values of Zeta"', Arithmetic Algebraic Geometry Conf., Oberwolfach, July 1988.

"Analogies between number fields and function fields", hour address A.M.S. Meeting, Chicago, May 1989.

"The arithmetic Riemann-Roch theorem", U.S.-U.S.S.R. Algebraic Geometry Conf., Univ. of Chicago, Aug. 1989.

"The Riemann-Roch theorem in arithmetic geometry", invited address, International Congress of Mathemticians, Kyoto, Aug. 1990.

"A Riemann-Roch theorem for analytic torsion", Geometry and Topology Conf., Ohio State Univ., Dec. 1990.

"The homotopy groups of the algebraic K-theory of the complex numbers", K-theory special session, Canad. Math. Soc. winter meeting, Waterloo, Ontario, Dec. 1990.

"An arithmetic Bezout theorem", Arithmetic geometry special session, A.M.S. winter meeting, San Francisco, Jan. 1991.

"The Arithmetic Riemann-Roch theorem", Milnor Symposium, Stony Brook, June 1991.

"Arithmetic Intersection Theory", Mini-Course following the Milnor Symposium, Stony Brook, June 1991.

"Rigidity of the Grassmann Graph construction", Taniguchi Symposium, Chateau de Brecourt, July 1991.

"Algebraic Arakelov Geometry", Arithmetic Geometry meeting, Oberwolfach, July 1992.

"Arithmetic intersection theory", Workshop on algebraic cycles, M.S.R.I., two talks, September 1992.

"Singular Riemann-Roch", five lecture mini-course, part of a graduate level "school" at Schloss Thurnau, organized by the University of Bayreuth, October 1992.

"An arithmetic Bezout theorem", Enumerative Geometry Workshop, M.S.R.I., March 1993.

"An arithmetic Bezout theorem", Diophantine Geometry Workshop, M.S.R.I., March 1993.

"Algebraic K-theory and Arakelov theory", series of four lectures, Arithmetic Geometry workshop, Nankai University, May 1993.

"Non-archimedean Arakelov theory", Analysis on Complex Manifolds meeting, Oberwolfach, June 1993.

"Non-archimedean Arakelov theory", Arithmetic Geometry special session, AMS-DMV joint meeting, Heidelberg, October 1993.

"K-Theory, motives, and weights", AMS Summer Institute on Algebraic Geometry, Santa Cruz, July 1995.

"K-Theory, motives, and weights", Conference on Arithmetic Geometry, Humboldt University, Berlin, May 1996.

"K-Theory, motives, and weights", Special Session on K-theory at the joint meeting of the AMS and Benelux mathematics societies, Antwerp, May 1996.

"The work of Robert Thomason on the rigidity of K-theory", AMS Summer Research Conference on K-theory, Seattle, August 1997.

"K-theory and algebraic geometry", five lectures at a workshop on Algebraic K-theory at the International Center for Theoretical Physics, Trieste, September 1997.

"Comparison of Filtrations on Algebraic K-theory", Conference on the Arithemetic of Algebraic Cycles and Motivic Cohomology, Newton Institute, University of Cambridge, February 1998.

"Differential algebraic geometry - A scheme theoretic approach", Conference on Model Theory, Algebra and Arithmetic, at the Mathematical Sciences Research Institute, Berkeley, June 1-5, 1998.

"Arithmetic Motives", NATO Advanced Study Institute/CRM Summer School on The Arithmetic and Geometry of Algebraic Cycles, Banff, June 1998.

"$K(K)$", AMS special Session - Great Lakes K-theory meeting, Urbana, April 1999.

"Deformation to the normal cone in arakelov theory" EURESCO conference on arithmetic geometry, Obernai, France, June 1999.

"Introduction to Arakelov Geometry", Three lectures at the 'SÉMINAIRE Méditerranéen d'AlgŁbre et Topologie', held at the Université Montpellier II - France, May 2000.

"Differential Algebra – a scheme-theoretic Approach", Workshop on Differential Algebra and Related Topics, Rutgers (Newark), November 2-3, 2000.

" Can one do arithmetic intersection theory on stacks?" Intersection Theory on Stacks Workshop, MSRI, March 11 - 15, 2002.

"Gersten's conjecture on log–smooth rings" Arakelov Theory Conference, Luminy, May 13-18, 2002.

"Recent Developments in Arakelov Theory" 60th Birthday Conference for Blaine Lawson, SUNY Stony Brook, June 1-7, 2002.

"Line Bundles on Stacks", "Learning Stacks and Computational Methods through Problem-Solving" workshop at U.I.U.C., June 12-15, 2002.

"Introduction to K-theory" Minicourse at the workshop On "K-Theory, Derived Categories And Strings", Department Of Mathematics, University Of Genova, June 18 to 21, 2002.

"An introduction to Arithmetic Chow Groups and Arakelov Theory", A Series of lectures at a workshop in Morelia, Mexico. The slides from the lectures (81 pages) are available on my web site, June 2003.

"An explicit proof of generalized Gauss-Bonnet", Special Session AMS meeting, Sevilla, Spain, June 2003.

"An explicit proof of generalized Gauss-Bonnet", Special Session AMS-India Meeting, Bangalore India, December 2003.

"An explicit proof of generalized Gauss-Bonnet", Special Session, AMS Winter Meeting Phoenix, January 2004.

"Motivic Cohomology and Arithmetic Intersection Theory", FRG workshop on Arakelov Theory and Modular Forms, Madison, September 2004.

"Arithmetic Intersection Theory on Stacks", Arakelov Theory Meeting, Oberwolfach, September 2005.

"Arithmetic motivic cohomology", Regulators II workshop, BIRS, Banff, December 2005.

"Sheaves of cycle complexes and complexes of motives", Workshop on algebraic cycles, Guanajuato, February 7-10 , 2006

"Forms, finite correspondences, the Poincare lemma, and Sobolev inequalities" Workshop on algebraic cycles, Guanajuato, February 7-10, 2006

"Weight Complexes", Three lectures at the Workshop on Motives and Periods, UBC, Vancouver, June 5 - 12, 2006.

"Arithmetic intersection theory on stacks", Motives and Algebraic Cycles, A Conference Dedicated to the Mathematical Heritage of Spencer J. Bloch at the Fields Institute, March 23, 2007.

"K-Correspondences and complexes of Motives", Conference on Algebraic Cycles, Ohio State University, March 2008.

"Questions about heights and height zeta functions", Conference on Regulators and Heights in Algebraic Geometry, University of Alberta, Edmonton, April 2008.

"Heights of Conics and the Spectrum of the Laplacian", Atelier sur lŠarithmétique et la géométrie hyperbolique, Université du Québec à Montreal, November 2008.

Colloquia and Seminars

Columbia Univ., "K-theory and intersection theory", Oct.-Nov. 1977.

Brown Univ., "K-theory and intersection theory", Feb. 1978.

Columbia Univ., "Riemann-Roch for higher K-theory", Feb. 1980.

Institute for Advanced Study, "K-theory and intersection theory", Nov. 1981.

Institute for Advanced Study, "K-theory and intersection theory", Feb. 1982.

Univ. of Minnesota, (special talk), May 1982.

Univ. of Minnesota, Algebraic Geometry Seminar, May 1982.

Univ. of Minnesota, "K-theory and mixed Hodge structures", Oct. 1982.

Univ.of Chicago, "Intersection theory on $\mathbf{Q}$ varieties", Nov. 1982.

Institute for Advanced Study, "Deligne cohomology and regulators", Feb. 1983.

Univ. of Pennsylvania, "Intersection theory on moduli spaces", Apr. 1983.

Johns Hopkins Univ., “Generalized cohomology of algebraic varieties”, Jan. 1984.

S.U.N.Y.-Stonybrook, “Abel-Jacobi homomorphisms and mixed Hodge structures, Feb. 1984.

Harvard Univ., “Deligne cohomology and regulators”, 2 one hour talks, March 1984.

Ohio State Univ., “Abel-Jacobi maps and mixed Hodge structures”, Mar. 1984.

Univ. of Pennsylvania, “Homotopy theory of simplicial sheaves”, Apr. 1984.

U.I.C., “K-theory and intersection theory”, May 1984.

U.I.U.C., “K-theory and Serre’s conjecture on the vanishing of intersection multiplicities”, Dec. 1984.

U.I.U.C., “Differential geometry and intersection theory on arithmetic varieties”, Dec. 1984.

Univ. of Chicago, “Differential geometry and intersection theory on arithmetic varieties”, Jan. 1985.

Univ. of Notre Dame, Colloquium, “Differential geometry and intersection theory on arithmetic varieties”, Jan. 1985.

Univ. of Chicago, “K-theory and Serre’s conjecture on the vanishing of intersection multiplicities”, Feb. 1985.

Institute for Advanced Study, “K-theory and Serre’s conjecture on the vanishing of intersection multiplicities”, Mar. 1985.

Univ. de Paris-Sud, Orsay, France, “Bloch-Ogus for arithmetic schemes”, April 1985.

Univ. de Paris-Sud, Orsay, France, “A simple proof of the compatibility of the K-theoretic and geometric products on the Chow groups”, May 1985.

Univ. de Paris VII, “On Gersten’s conjecture”, Paris K-theory Seminar, May 1985.

I.H.E.S., Bures-sur-Yvette, France, “Intersection theory and Riemann Roch for arithmetic surfaces (after Faltings)”, May 1985.

Yale Univ., “Differential geometry and arithmetic geometry”, Colloquium, Oct. 1985.

Inst. Politecnico Nac. Mexico, “Intersection theory on arithmetic varieties”, Seminar, Nov. 1985.

U.N.A.M., Mexico City, “K-theory and algebraic geometry”, six lectures, Nov.-Dec. 1985.

U.N.A.M., Mexico City, “What is algebraic K-theory?”, Seminar “Coffee and Mathematics”, Dec. 1985.

Northwestern Univ., “Secondary classes and algebraic K-theory”, Topology Seminar, Feb. 1986.

Harvard Univ., “Arakelov intersection theory in higher dimensions”, Number Theory Seminar, March 1986.

Princeton Univ., “Arakelov intersection theory”, Algebra Seminar, March 1986.

U.I.U.C., “Continued fractions and groups acting on trees”, Colloquium, Oct. 1986.

Univ. of Michigan, “Analytic torsion and index theory”, String Theory Seminar, Nov. 1986.

Yale Univ., “Arithmetic intersection theory”, Feb. 1987.

Yale Univ., “Analytic torsion and holomorphic determinant bundles”, Feb. 1987.

Univ. of Chicago, “Holomorphic structures on determinant bundles”, Differential Geometry Seminar, May 1987.

Princeton Univ., Algebra Seminar, “Analytic torsion and the Riemann-Roch theorem”, Oct. 1987.

Univ. of Pennsylvania, “Arithmetic intersection theory”, Oct. 1987.

Univ. of Michigan, Algebraic Geometry Seminar, “Arithmetic intersection theory and differential characters”, Nov. 1987.

Univ. of Michigan, Colloquium, “Continued fractions and group actions on R-trees”, Nov. 1987.

Univ. of Minnesota, Colloquium, “Analytic torsion and values of Zeta”, May 1988.

U.I.U.C., Commutative Algebra Seminar, “The arithmetic Todd genus”, Nov. 1988.

Univ. of Chicago, Colloquium, “Analogies between number fields and function fields”, Nov. 1988.

Harvard Univ., Seminar, “Gersten’s conjecture and intersection theory”, March 1989.

Stanford Univ., Colloquium, “Analytic torsion and the Riemann-Roch Theorem”, April 1989.

U.I.U.C. Colloquium, “Analogies between number fields and function fields”, Oct. 1989.

Univ. of Arizona, Colloquium, “Analogies between number fields and function fields”, Nov. 1989.

Univ. of Minnesota, Colloquium, “An analog of the Morse inequalities in the geometry of numbers”, Dec. 1989.

Univ. of Minnesota, Seminar, “The Arithmetic Riemann-Roch theorem”, Dec. 1989.

Purdue Univ., Colloquium, “Analytic torsion and the arithmetic Riemann-Roch theorem”, Feb. 1990.

Univ. de Paris-Sud, Orsay, Seminar, “An analogue for lattices of the classical theorem of Roch”, March 1990.

Rice Univ., Colloquium, “A Riemann-Roch theorem for analytic torsion”, Nov. 1990.

Cal. Inst. Technology, Number theory seminar, “An arithmetic Bezout theorem”, Jan. 1991.

Courant Institute, N.Y.U. Seminar, “Analytic torsion and Arakelov theory”, Feb. 1992.

University of California, Berkeley, MSRI-Evens seminar, “An arithmetic analog of Bezout’s theorem”, September 1992.

University of Michigan, Topology seminar, “Aspects of groups acting on trees”, Feb. 1993.

U.I.U.C., Commutative Algebra Seminar, “Non-Archimedean Arakelov theory”, Nov. 1993.

U. Wisconsin, Colloquium, “Arakelov Theory”, Feb. 1994.

Johns Hopkins U., “Arakelov Theory”, Feb. 1994.

Duke U., “K-Theory, motives, and weights”, March 1995.

Northwestern U., “K-Theory, motives, and weights”, Algebra Seminar, 1995.

Columbia University, Number Theory Seminar, “Analytic Torsion and arithmetic Betti Numbers”, November 1996.

University of Arizona, Number Theory Seminar, two talks: “Non Archimedean Arakelov Theory” and “K-Theory, motives, and weights”, April 1999.

Columbia University, 1999 Kolchin Lecture, “A scheme theoretic approach to Differential Algebra”, May 1999.

CCNY, Differential Algebra Seminar, “A scheme theoretic approach to Differential Algebra, part II”, May 1999.

Oxford University, Number Theory Seminar, “Non archimedean Analytic Torsion”, November 1999.

Université Montpellier II, Algebraic Geometry Seminar, “Chow motives and weights in arithmetic geometry”, May 2000.

Kings College London, Colloquium, “Connections between solving Diophantine equations and analysis on manifolds”, March 2001.

University of Chicago, Algebraic Geometry Seminar, “Arithmetic Intersection Theory on Stacks”, November 3, 2002.

Hunter College, CUNY, Kolchin Seminar in Differential Algebra, “Derivations, connections, exponential maps, and the Riemann-Roch Theorem”, 2 lectures, February 2004.

U.I.U.C., Algebraic Geometry Seminar, “Arithmetic Intersection Theory and Motivic Cohomology”, January 24, 2005.

Centre de Recerca Matemàtica, Barcelona, Arakelov Theory Seminar, “Arithmetic Chow groups and motivic cohomology”, September 29, 2005.

University of Barcelona, Algebraic Geometry Seminar, Intersection theory on semi-stable varieties via deformation to the normal cone, November 4, 2005.

Tata Institute for Fundamental Research, “Motives and Arithmetic Weight Complexes”, Colloquium, November 2006.

Tata Institute for Fundamental Research, “Arakelov theory”, Seminar, December 2006.

University of Western Ontario, “Fields of definition of algebraic varieties in positive characteristic”, October 2007.

Algebra Colloquium, UCLA, “Heights of conics and the spectrum of the Laplacian”, October 2008.

Queen’s University, Kingston, Ontario, “Heights of Conics and the Spectrum of the Laplacian”, Colloquium, October 2008.

Fields Institute, Toronto, “What is infinity factorial (and why might we care)?”, Clay Mathematics Institute Public Lecture, November 2008.

Grant Support

N.S.F. grant,	1985-89	DMS-8502488	$68,100
	1989-92	DMS-8901784,	$122,150
	1991-94	INT-9016043,	$12,034 (To support expenses of joint research with C. Soulé)
	1993	DMS-9304904,	$20,500 (Co-PI on SCREMS grant for computer equipment)
	1992-95	DMS-9203379,	$82,875
	1995-98	DMS-9501500,	$190,300
	1998-03	DMS-9801219	$231,675
	2000-05	DMS-9983703	$1,515,938 (VIGRE grant, to support graduate students and post-docs)
	2001-06	DMS-0100587	$101,835
	2005-09	DMS-0500762	$146,607
	2009-13	DMS-0901373	$280,000

Publications

1. “Riemann-Roch theorems for higher algebraic K-theory," *Bull. Amer. Math. Soc.* **3** (1980), 849–852.

2. “Riemann-Roch theorems for higher algebraic K-theory," *Adv. in Math.* **40** (1981), 203–289.

3. “Comparison of K-theory spectral sequence, with applications," in *Algebraic K-Theory, Evanston 1980* Lecture Notes in Math., vol. 854, Springer-Verlag, 1981, 141–167.

4. “Universal cycle classes," *Compositio Math.* **49** (1983), 3–49.

5. “Riemann-Roch for general algebraic varieties" (with W. Fulton), *Bull. Soc. Math. France* **111** (1983), 287–300.

6. “On the K-theory of surfaces with multiple curves and a conjecture of Bloch," *Duke Math. J.* **51** (1984), 195–233.

7. “Homological descent for the K-theory of coherent sheaves," in *Algebraic K-Theory, Number Theory, Geometry and Analysis, Proc. Bielefeld 1982* Lecture Notes in Math, A. Bak, ed., vol. 1046, Springer-Verlag, 1984, 80–104.

8. “Deligne homology and Abel-Jacobi maps," *Bull. Amer. Math. Soc. (n.s.)* **10** (1984), 285–288.

9. “Intersection theory on algebraic stacks and Q-varieties," *J. Pure Appl. Algebra* **34** (1984), 193–240.

10. “The K-theory of strict Hensel local rings and a theorem of Suslin" (with R. Thomason), *J. Pure Appl. Algebra* **34** (1984), 241–254.

11. “Intersection sur les variétés d’Arakelov" (with C. Soulé), *C. R. Acad. Sc. Paris Ser. I Math.* **299** (1984), 563–566.

12. “Some new Gysin homomorphisms for the Chow homology of varieties," *Proc. London Math. Soc. (3)* **50** (1985), 57–68.

13. “K-théorie et nullité des multiplicités d’intersection" (with C. Soulé), *C. R. Acad. Sc. Paris Ser. I Math.* **300** (1985), 71–74.

14. “Classes caractéristiques en théorie d’Arakelov" (with C. Soulé), *C. R. Acad. Sc. Paris Ser. I Math.* **301** (1985), 439–442.

15. “The K-theory of twisted complexes," in *Applications of Algebraic K-Theory to Algebraic Geometry and Number Theory, Proc. 1983 Summer Research Conf.*, vol. 55, Contemp. Math., 1986, 159–192.

16. “Gersten’s conjecture for the K-theory with torsion coefficients of a discrete valuation ring," *J. Algebra* **103** (1986), 377–380.

17. “Direct images of hermitian holomorphic bundles" (with C. Soulé), *Bull. Amer. Math. Soc.* **15** (N.S. 1986), 209–212.

18. “The relative form of Gersten’s conjecture over a discrete valuation ring: the smooth case" (with M. Levine), *J. Pure Appl. Algebra* **46** (1987), 59–71.

19. “Riemann-Roch and cycle classes in crystalline cohomology" (with W. Messing), *Duke Math. J.* **55** (1987), 501–538.

20. “An introduction to higher dimensional Arakelov theory," in *Current Trends in Arithmetical Algebraic Geometry*, vol. 67, Contemp. Math., 1987, 209–228.

21. “Intersection theory and Adams operations" (with C. Soulé), *Invent. Math.* **90** (1987), 243–277.

22. “Torsion analytique et fibres déterminant holomorphes" (with J. M. Bismut and C. Soulé), *C. R. Acad. Sc. Paris* **305** (1987), 81–84.

23. “The loop space of the Q construction" (with D. Grayson), *Illinois J. Math.* **31** (1987), 574–597.

24. “K-theory and intersection theory revisited," *K-Theory* **1** (1987), 405–415.

25. “Analytic torsion and holomorphic determinant bundles I: Bott-Chern forms and analytic torsion" (with J. M. Bismut and C. Soulé), *Communications Math. Physics* **115** (1988), 49–78.

26. “Analytic torsion and holomorphic determinant bundles II: Direct images and Bott-Chern forms" (with J. M. Bismut and C. Soulé), *Communications Math. Physics* **115** (1988), 79–126.

27. “Analytic torsion and holomorphic determinant bundles III" (with J. M. Bismut and C. Soulé), *Communications Math. Physics* **115** (1988), 301–351.

28. “Classes caracteristiques secondaires et immersion en geometrie complexe" (with J. M. Bismut and C. Soulé), *C. R. Acad. Sci. Paris* **307** (1988), 565–567.

29. “Amplitude arithmetique" (with C. Soulé), *C.R. Acad. Sci. Paris* **307** (1988), 887–890.

30. “Arithmetic Chow groups and differential characters" (with C. Soulé), in *Algebraic K-theory: Connections with Geometry, and Topology*, J. F. Jardine and V. Snaith, eds., NATO ASI series, vol. 279, Kluwer, Dordrecht, 1989, 29–69.

31. “Un theoreme de Riemann-Roch-Grothendieck Arithmetique" (with C. Soulé), *Comptes Rendues Acad. Sci. Paris t.* **309** (1989), 929–933.

32. “Bott Chern currents and complex immersions" (with J. M. Bismut and C. Soulé), *Duke Math. J.* **60** (1990), 255–284.

33. “Characteristic classes for algebraic vector bundles with Hermitian Metric" (with C. Soulé), *Annals of Math.* **131** (1990), 163–243.

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