

**Curriculum Vita of  
STEVEN DALE CUTKOSKY**

**Address**

Department of Mathematics, University of Missouri  
Columbia, Missouri-65211, U.S.A

**Education**

Ph.D. 1985 Brandeis University, Waltham, MA 02254  
B.S. 1981 Indiana University, Bloomington, IN 47003

Thesis Advisor: Professor Teruhisa Matsusaka

**Research Areas**

Algebraic Geometry and Commutative Algebra

**Positions Held since Ph.D**

- (1) Curator's Professor, University of Missouri, since December 2001.
- (2) General Member, Mathematical Sciences Research Institute, Aug 2002 - Dec 2002.
- (3) Professor, University of Missouri, since September 1995.
- (4) Visiting Professor, Chennai Mathematical Institute, Chennai (Madras), India, Oct 1999 - Jan 2000.
- (5) Visiting Professor, Northeastern University, Jan 2000 - June 2000.
- (6) Associate Professor, University of Missouri, Aug 1991-July 1995
- (7) Assistant Professor, University of Missouri, Aug 1989-July 1991
- (8) Visiting Professor, Universität Essen, Germany, May-June 1995
- (9) Visiting Professor, Chennai Mathematical Institute, Chennai (Madras), India, June 1994 - July 1994.
- (10) Visiting Professor, Tata Inst. of Fundamental Research, India, Spring 1991
- (11) Visiting Assistant Professor, Purdue University, Aug 1988-July 1989
- (12) Ritt Assistant Professor, Columbia University, Aug 1985-July 1988

### Awards and Grants

- (1) University of Missouri President's Award for Research and Creative Activity, March 2004.
- (2) NSF Research grant: July 2003-June 2008.
- (3) Curators Professor at University of Missouri, since December, 2001.
- (4) NSF Research grant: July 2000-June 2003.
- (5) National Board of Higher Mathematics, Short Term Visitors Grant, Government of India, 10/99 - 1/00.
- (6) NSF Research grant: July 1997-June 2000.
- (7) NSF Research grant: July 1994-June 1997.
- (8) 1994 Chancellor's Award for Outstanding Faculty Research and Creative Activity in the Physical and Mathematical Sciences. (University of Missouri, Columbia).
- (9) NSF Research grant: July 1992-June 1994.
- (10) NSF Research grant: July 1990-June 1992.
- (11) Fulbright Research Grant: Jan 1991-April 1991.
- (12) NSF Research grant: July 1988-June 1990.
- (13) NSF Research grant July 1987-June 1988.
- (14) Sloan Pre Doctoral Fellow July 1984-June 1985.

### Editorships

- (1) Illinois Journal of Mathematics, 1995–1998
- (2) Journal of Algebra, from January, 2005.

### Book Edited

Proceedings of the Conference on Hilbert Schemes, Vector Bundles and their Interplay with Representation Theory, Columbia, Missouri (2002). Contemporary Math. (2003), American Mathematical Society.  
Co-edited with Dan Edidin, Zhenbo Qin and Qi Zhang.

### Conferences Organized

- (1) Summer School on Resolution of Singularities, June 12 - 30, 2006 at the Abdus Salam International Centre for Theoretical Physics - Trieste. (co-organized with Janos Kollár and Bernard Teissier).
- (2) Fields Institute Summer School and Conference on Valuation Theory and Integral Closures in Commutative Algebra, July 2 - 22, 2006 in Ottawa Canada. Co-organized with Sara Faradi, Franz-Viktor Kuhlmann and Irena Swanson.
- (3) Workshop on Resolution of Singularities, factorization of birational mappings and toroidal geometry, Dec. 11-16, 2004 at Banff International Research Station. (co-organized with Ed Bierstone, Kenji Matsuki, Phil Millman and Jarek Włodarczyk)

- (4) Research in Teams on Local Uniformization and Resolution of Singularities, August 16 - September 6, 2003 (co-organized with Franz-Viktor Kuhlmann).
- (5) Hilbert Schemes and Vector Bundles, University of Missouri, Columbia, April 5-7, 2002. (co-organized with Dan Edidin, Zhenbo Qin and Qi Zhang).
- (6) Algebra Weekend, University of Missouri, Columbia, Oct. 21-22, 2001. (co-organized with Hema Srinivasan).
- (7) Midwest Algebraic Geometry Conference, University of Missouri-Columbia, Oct. 9-10, 1999. (co-organized with Dan Edidin and Qi Zhang).
- (8) Commutative Algebra, AMS special session, Columbia, MO, November 1-3, 1996 (co-organized with H. Srinivasan).
- (9) Interactions between Commutative Algebra and Algebraic Geometry, Columbia, MO, May 28-30 1993 (Co-organized with Hema Srinivasan)
- (10) MidWest-Great Plains Workshop in Commutative Algebra, Columbia, MO, June 15-16 1991 (co-organized with J.Huckaba, I.Papick, H.Srinivasan and D.Weston)

#### **Current Ph.D. Students**

- (1) Vinh Pham An

#### **Ph.D. Students**

- (2) Krishna Hanumantha. Thesis: "Toroidalization of Locally Toroidal Morphisms", May 2008, Post Doc at the University of Kansas, Lawrence.
- (3) Samar El-Hitti. Thesis: "Algebraic Resolution of Formal Ideals along a Valuation", May 2008, Assistant Professor at the New York City College of Technology (Cuny).
- (4) Olga Kashcheyeva. Thesis: "Monomialization of strongly prepared morphisms to surfaces", May 2003, Lecturer at the University of Illinois, Chicago.
- (5) Russell Goward, Thesis: "Principalization of ideals generated by monomials", May 2001. Assistant Professor at the University of the District of Columbia
- (6) Kent Neuerburg, Thesis: "On Puiseux series and resolution Graphs", May 1998. Associate Professor at Southeastern Louisiana State University.

## Publications of Steven Dale Cutkosky

**Journal Articles**

- (1) *Semigroups of valuations on local rings, II* with Bernard Teissier, eprint arXiv:0805.3788.
- (2) *Finite generation of algebras associated to powers of ideals* with Juergen Herzog and Hema Srinivasan, eprint arXiv:08060566.
- (3) *Semigroups of valuations on local rings* with Bernard Teissier, eprint AG/0708.0019v1, to appear in Mich. Math. J.
- (4) *Resolution of Singularities for 3-folds in positive characteristic*, eprint AG/0606530, to appear in American J. of Math.
- (5) *Duality and Tameness*, with Marc Chardin, Jürgen Herzog and Hema Srinivasan, eprint AC/0704.0102, to appear in Mich. Math. J.
- (6) *Algebraic Series and Valuation Rings over Nonclosed Fields*, with Olga Kashcheyeva, eprint AC/0710.5522, to appear in J. of Pure and Applied Algebra.
- (7) *Failure of Tameness for Local Cohomology*, with Jürgen Herzog, J. of Pure and Applied Algebra 211 (2007), 428-432.
- (8) *Factorizations of birational extensions of local rings*, with Hema Srinivasan, eprint AC/0601393, Illinois Journal of Mathematics 51 (2007), 41-56 (volume in honor of Phil Griffith).
- (9) *Poincaré series of surface singularities*, Commutative Algebra, Geometric, Homological, Combinatorial and Computational Aspects, Lecture Notes in Pure and Applied Mathematics Volume 244, Chapman and Hall (2006), 49-58.
- (10) *Local Monomialization of Transcendental Extensions*, Journal of the Fourier Institute 55 (2005), 1517 – 1586.
- (11) *Asymptotic behavior of the length of local cohomology*, with Huy Tài Hà, Hema Srinivasan and Emanoil Theodorescu, Canadian J. Math. 57 (2005), 1178 – 1192.
- (12) *Arithmetic Macaulayfication of Projective Schemes*, with Huy Tài Hà, Journal of Pure and Applied Algebra 201 (2005), 49 – 61.
- (13) *Completions of Valuation Rings*, with Laura Ghezzi, Contemporary Math. 386 (2005), 13 – 34.
- (14) *Multi-graded algebras associated to surface singularities*, Contemporary Mathematics 390 (2005), 73 – 84.
- (15) *Monomialization of Strongly Prepared Morphisms to surfaces*, with Olga Kashcheyeva, Journal of Algebra 275 (2004), 275 - 320.
- (16) *Ramification of Valuations*, with Olivier Piltant, Advances in Mathematics 183 (2004), 1-79.
- (17) *The Structure of Morphisms*, in Algebra, arithmetic and geometry with applications, 273-281, Springer, Berlin, 2004.
- (18) *Poincaré Series of Resolutions of Surface Singularities*, with Anna Reguera and Jürgen Herzog, Transactions of the AMS 356 (2003), 1833 - 1874.
- (19) *Monomialization and Ramification of Valuations*, in Nato/Otan Advanced Research Workshop on “Commutative Algebra, Singularities and Computer Algebra”, 2003.

- (20) *Poincaré series of line bundles on varieties*, in A Tribute to C.S. Seshadri, Hindustan Book Agency, 2003, 220-240.
- (21) *Ramification of Valuations and Singularities*, Algebra and Geometry, Hindustan Book Agency, 2003, 147-158.
- (22) *Generically finite morphisms and simultaneous resolution of singularity*, Contemporary mathematics, 2003.
- (23) *Resolution of Morphisms*, in “Valuation Theory and its Applications. Volume I”, Fields Institute Communications, 2002, 117-140.
- (24) *Positivity and Complexity of Ideals Sheaves*, (with Lawrence Ein and Robert Lazarsfeld), Math. Annalen 321, (2001) 213-234.
- (25) *Isomorphism of complexes and lifts* (with Hema Srinivasan), in Geometric and combinatorial aspects of commutative algebra (Messina 1999), Lecture Notes in Pure and Applied Algebra 217, Dekker NY, 2001.
- (26) *Local Monomialization*, in Geometric and combinatorial aspects of commutative algebra (Messina 1999), Lecture Notes in Pure and Applied Algebra 217, Dekker NY, 2001.
- (27) *Towards a criterion for isomorphism of complexes*, (with Hema Srinivasan), in Ideal theoretic methods in commutative algebra, (Columbia MO 1999), Lecture Notes in Pure and Applied Mathematics 220, Dekker NY, 2001.
- (28) *Monomial resolutions of morphisms of algebraic surfaces* (with O. Piltant), Communications in Algebra 28 (Special Issue in honor of Hartshorne) (2000), 5935-5960.
- (29) *Valuations in Algebra and Geometry*, in Singularities in Algebraic and Analytic Geometry, Caroline Grant Melles, Ruth I Michler eds., Contemporary Mathematics 266 (2000), 45-64.
- (30) *Irrational Asymptotic Behaviour of Castelnuovo regularity*, Journal für die reine und angewandte Mathematik 522 (2000), 93-103.
- (31) *Vanishing of differentials along ideals and non-archimedean approximation* (with R. Hübl), Math. Annalen 317 (2000), 295-308.
- (32) *The algebraic fundamental group of the complement of a curve singularity* (with H. Srinivasan), J. algebra 230 (Buchsbaum Volume) (2000), 101-126.
- (33) *Simultaneous Resolution of Singularities*, Proc. Amer. Math. Soc. 128 (2000), 1905-1910.
- (34) *Local Monomialization and Factorization of Morphisms*, Astérisque 260 (1999).
- (35) *Asymptotic regularity of ideals*, the Proceedings of the 21st Symposium on Commutative Algebra, held in Tokyo, Japan, Nov. 23-26, 1999.
- (36) *Monomialization of Morphisms*, the Proceedings of the 21st Symposium on Commutative Algebra, held in Tokyo, Japan, Nov. 23-26, 1999.
- (37) *Asymptotic behaviour of the Castelnuovo-Mumford regularity*, (with J. Herzog and Ngô Viêt Trung), Compositio Math. 118 (1999), 243-261.
- (38) *Cohen Macaulay coordinate rings of blowup schemes*, (with J. Herzog), Comm. Math. Helvetici 72 (1997), 605-617.
- (39) *Local factorization of birational maps*, Advances in Math 132 (1997), 167-315.

- (40) *Equivalence and finite determinacy of mappings*, (with H. Srinivasan), *Journal of Algebra* 188 (1997), 16-57.
- (41) *Simple connectedness of projective varieties*, *Proc. Amer. Math. Soc.* 125 (1997), 679-684.
- (42) *Purity of the branch locus and Lefschetz theorems*, *Compositio Math.* 96 (1995), 173-195.
- (43) *A vanishing theorem for local rings*, Appendix to *Adjoints of ideals in regular local rings*, J. Lipman, *Mathematical Research Letters* 1 (1994), 752-754.
- (44) *Purity of the Branch Locus*, in *Commutative Algebra*, W. Bruns, J. Herzog, M. Hochster, U. Vetter, eds, Verlag Druckerei Runge GmbH, Cloppenburg, (1994), 47-50.
- (45) *Complete ideals in algebra and geometry*, *Contemporary Math.*, 159 (1994), 27-39.
- (46) *Periodicity of the fixed locus of multiples of a divisor on a surface*, (with V. Srinivas), *Duke Math. J.* 72 (1993), 641-647.
- (47) *An intrinsic Criterion for Isomorphism of Singularities*, (with H. Srinivasan), *Amer. J. Math* 115 (1993), 789-822.
- (48) *Local fundamental groups of surface singularities in characteristic  $p$* , (with H. Srinivasan), *Comment. Math. Helvetici* 68 (1993), 319-332.
- (49) *On a problem of Zariski on dimensions of linear systems*, (with V. Srinivas), *Annals of Mathematics*, 137 (1993), 531-559.
- (50) *When are the blow ups of two ideals the same scheme?*, *Communications in Algebra.* 19 (1991), 1119-1124.
- (51) *Symbolic algebras of monomial primes*, *Journal für die reine und angewandte Mathematik (Crelle's Journal)*. 416 (1991), 71-89.
- (52) *A new characterization of rational surface singularities*, *Inventiones Math.* 102 (1990), 157-177.
- (53) *On Fano 3-folds*, *Manuscripta Math.* 64 (1989), 189-204.
- (54) *On unique and almost unique factorization of complete ideals II*, *Inventiones Math.* 98 (1989), 59-74.
- (55) *On unique and almost unique factorization of complete ideals*, *Amer. J. Math.* 111 (1989), 417-433.
- (56) *Weil divisors and symbolic algebras*, *Duke Math. J.* 57 (1988), 175-183.
- (57) *Elementary contractions of gorenstein threefolds*, *Math. Ann.* 280 (1988), 521-525.
- (58) *Factorization of complete ideals*, *J. Algebra* 115 (1988), 144-149.
- (59) *Zariski decomposition of divisors on algebraic varieties*, *Duke Math. J.* 53 (1986), 149-156.

## Books

- (58) *Toroidalization of dominant morphisms of 3-folds*, *Memoirs of the AMS*, Volume 190, American Mathematical Society, Providence (2007), 222 pages.
- (59) *Resolution of Singularities*, *AMS Graduate Studies in Mathematics* 63, American Mathematical Society, Providence (2004), 186 pages.

- (60) *Monomialization of Morphisms from 3 Folds to Surfaces*, Springer Lecture notes, LNM 1786 (2002), 235 pages.
- (61) *Local Monomialization and Factorization of Morphisms*, Astérisque no. 260 (1999), 143 pages.

### Featured Review

My paper *Local Factorization of Birational Maps*, Advances in Math 132 (1997), 167-315 is the subject of the “featured review” 99c:14018 in Mathematical Reviews.

### INVITED TALKS

- (1) University of Valladolid, Algebraic Geometry Seminar, Feb. 20, 2008, “Asymptotic Properties of Powers of Ideals”.
- (2) University Autónoma of Madrid, Algebraic Geometry Seminar, Feb. 18, 2008, “Monomialization of Morphisms”.
- (3) Seville Conference on Combinatorial and Computational Commutative Algebra, Feb. 13, 2008, “Semigroups of Valuations”.
- (4) University of Versailles, Algebraic Geometry Seminar, Feb. 5, 2008, “Local Strong Factorization of Birational Morphisms”.
- (5) University of Paris 7, Singularities Seminar, Feb. 4, 2008, “Algebraic Series over Non Closed Fields”.
- (6) University of Essen Oberseminar, Jan. 31, 2008, “Toroidalization of Morphisms”.
- (7) University of Paris, 7, Mini conference on algebraic geometry, “Local Cohomology of Powers of ideals”.
- (8) IIT, Madras, Colloquium Talk, Jan. 17. 2008, “Monomialization of Morphisms”.
- (9) CIMPA Conference on Commutative Algebra, IIT Bombay, Mumbai Jan. 9, 2008, “Properties of High Powers of Ideals”.
- (10) Commutative Algebra Conference in Honor of Juergen Herzog, Cortona, Italy, Sept 19, 2007, “Asymptotic Properties of Ideals”.
- (11) KUMUNU Conference, Lincoln, Nebraska, Sept. 8, 2007, “Semigroups of Valuations on Local Rings”
- (12) Workshop on Commutative Algebra and Algebraic Geometry, BIRS, Banff, Canada, June 13, 2007, “Nontame Rees Algebras”.
- (13) Special Session on Commutative Algebra and Algebraic Geometry, AMS meeting, Davidson, NC., March 4 2007, “Pathological asymptotic behavior of Local Cohomology”.
- (14) Special Session on Commutative Algebra and Algebraic Geometry, AMS meeting, New Orleans, January 8, 2007, “Failure of Tameness for Local Cohomology”.
- (15) Algebraic Geometry Seminar, University of Versailles (France), November 21, 2006, “Torodalization of morphisms I”.
- (16) Algebraic Geometry Seminar, University of Versailles (France), November 28, 2006, “Torodalization of morphisms II”.
- (17) Workshop on Syzygies and Hilbert Functions, BIRS, Banff, Canada, October 18. 2006, “Failure of tameness for local cohomology”.

- (18) Fields Institute Summer School and Conference on Valuation Theory and Integral Closures in Commutative Algebra, Ottawa, Canada, July 2 - 22, 2006, "Geometric theory of local rings": 3 lectures.
- (19) Summer School on Resolution of Singularities, ICTP, Trieste, Italy, June 12 - June 30, 2006. "Basics of Algebraic Geometry": 3 lectures, "Monomialization and Toroidalization of Morphisms": 3 lectures.
- (20) Algebre Commutative et Geometrie Algebrique, CIRM, Marseille-Luminy, May 25, 2006, "Differential Forms and Toroidalization".
- (21) Special Session on Commutative Algebra and Algebraic Geometry, AMS meeting, Miami, Florida, April 1, 2006, "Logarithmic Differential Forms".
- (22) Special Session on Syzygies in Commutative Algebra and Geometry, AMS meeting, San Antonio, Texas, January 12, 2006, "Efficient Toroidalization of Morphisms".
- (23) Algebra Seminar Talk, University of Kansas, Lawrence, November 10, 2005, "Hypersurfaces of maximal contact and toroidalization".
- (24) Colloquium Talk, University of Kansas, Lawrence, November 10, 2005, "Algebraic Mappings".
- (25) Midwest Algebra, Geometry and their Interactions Conference, University of Notre Dame, October 8, 2005, "Toroidalization of Projective Morphisms".
- (26) Commutative Algebra Conference, honoring the contributions of Phillip Griffith, Urbana, Illinois, September 17, 2005, "On understanding valuations through power series".
- (27) Indian Institute of Technology (IIT), Bombay, July 8, 2005, "Toroidalization of Morphisms".
- (28) Special session on Hilbert Functions, Joint meeting of AMS/DMV, Mainz Germany, June 18, 2005, "Poincare Series and Hilbert Functions of Surface Singularities".
- (29) University of Barcelona, June 15, 2005, "The Toroidalization and Factorization of Morphisms of Projective varieties".
- (30) Seminaire sur les Singularites, University of Paris VII, June 13, 2005 "Toroidalization of Morphisms".
- (31) Nebraska Commutative Algebra Confrence: Wiegandfest, May 9, 2005, "Toroidalization of Morphisms".
- (32) Algebra Seminar Talk, University of Illinois Chicago, March 24, 2005, "Toroidalization of Morphisms".
- (33) Colloquium Talk: Tulane University, March 17, 2005, "Polynomial Mappings".
- (34) Special Session on Commutative Algebra, AMS meeting, Atlanta, Georgia, Jan 5 - 8. 2005, "Graded Algebras Associated to Surface Singularities".
- (35) Workshop on Resolution of singularities, Factorization of Birational Mappings and Toroidal Geometry, Dec 11-16, 2004 at the Banff International Research Station, Banff, Canada, Lecture series of three 50 minute talks on "Toroidalization of Morphisms".
- (36) Special Session on Algebraic Geometry and Commutative Algebra, AMS meeting, Nashville, TN, October 16 - 17, 2004, "Graded Algebras Associated to Surface Singularities".

- (37) Colloquium Talk: University of Nebraska, Oct. 8, 2004, "Algebraic Mappings of 3-folds".
- (38) Workshop on Commutative Algebra, Sept. 11-16, 2004 at the Banff International Research Station, Banff, Canada, "Toroidalization of birational morphisms of 3-folds".
- (39) Conference on Commutative Algebra and Interactions with Algebraic Geometry and Combinatorics, June 5-12, 2004 at The Abdus Salam International Center for Theoretical Physics, Trieste, Italy, "Toroidalization of birational morphisms of 3-folds".
- (40) Conference in Honor of Joseph Lipman, May 17-21, 2004 at Purdue University, "Toroidalization of morphisms".
- (41) Special Session on Commutative Algebra and Algebraic Geometry, AMS meeting, Lawrenceville, NJ, April 17-18, 2004, "Asymptotic Behavior of the Length of Local Cohomology".
- (42) Colloquium Talk: Rutgers University, April 16, 2004, "Monomialization and Toroidalization of Morphisms of 3-folds".
- (43) Special Session on Syzygies and Hilbert Functions, AMS meeting, Tallahassee, Florida, March 12-13, 2004, "Poincaré Series of Surface Singularities".
- (44) Joint India-AMS mathematical meeting, Bangalore, December 18, 2003, Special Session in Commutative Algebra, "Monomialization of Birational Morphisms of 3-folds".
- (45) Joint Meeting of the Spanish and American Mathematical Societies, Seville, June 21, 2003, Special Session in Commutative Algebra, "Poincaré Series of Resolutions of Surface Singularities".
- (46) *Algebre Commutative et Geometrie Algebrique*, CIRM, Marseille-Luminy, June 3, 2003, "Poincaré Series of Singularities".
- (47) Bach2 Conference, University of Kentucky, April 12, 2003, "Ramification of Valuations".
- (48) Algebra Seminar, Texas A and M University, February 21, 2003, "Monomialization of Mappings".
- (49) MSRI Workshop on "Commutative Algebra: Local and Birational Theory", MSRI, Berkeley, California, December 2, 2002, "Ramification and Resolution in Transcendental Extensions", video and notes from lecture online at [www.msri.org/publications/ln/msri/2002/birational/cutkosky/1/index.html](http://www.msri.org/publications/ln/msri/2002/birational/cutkosky/1/index.html).
- (50) Nato/Otan Advanced Research Workshop on "Commutative Algebra, Singularities and Computer Algebra", Sinaia Romania, September 19, 2002, "Ramification of Valuations".
- (51) Talk in Oberseminar, University of Essen, Germany, June 25, 2002, "Poincaré Series of Resolutions of Surface Singularities".
- (52) Conference on "Current Trends in Commutative Algebra", Levico Italy, June 17 - June 21, 2002, "Ramification of Valuations".
- (53) Conference at University of Tennessee, April 25 - 27, 2002, "Simultaneous Resolution of Singularities".
- (54) Colloquiumfest, University of Saskatchewan, Saskatoon, Canada, March 24, 2002, "Ramification of Valuations".
- (55) AMS meeting, Ann -Arbor, Michigan, Special Session in Commutative Algebra, March 1- 3, 2002, "Ramification of Valuations".

- (56) Commutative Algebra Days, Nebraska, March 16, “Ramification of Valuations”.
- (57) Mathematical Sciences Institute, Madras, India, December 17, 2001, “A Counterexample to global simultaneous resolution”.
- (58) International Conference on Algebra and Geometry, University of Hyderabad, Hyderabad, India, December 7 - 12, 2001, “Simultaneous Resolution”.
- (59) Colloquium Talk, Washington University, St. Louis, Nov. 27, 2001, “Resolution of mappings”.
- (60) Colloquium Talk, University of Kentucky, Lexington, Nov. 20, 2001, “Resolution of mappings”.
- (61) Colloquium Talk, University of Kansas, Lawrence, Nov. 1, 2001, “Finite mappings and ramification of valuations”.
- (62) AMS-SMF Meeting, Lyon, France, Special Session on Commutative Algebra, July 17, 2001, “Hilbert Functions of Ideal Sheaves”
- (63) Commutative Algebra, Interactions with Algebraic Geometry, Institut Fourier, Grenoble, July 14, 2001, “Generically finite morphisms and Ramification of Valuations”.
- (64) Algebra Seminar, University of Messina, Sicily, “Ramification of Valuations I” (June 26) and “Ramification of Valuations II” (June 28).
- (65) Algebra Seminar, University of Messina, Sicily, “Asymptotic Regularity I” (June 19) and “Asymptotic Regularity II” (June 21).
- (66) Conference on Singularities of Algebraic Varieties and Desingularization, University of Versailles, France June 13, 2001, “Ramification of Valuations”.
- (67) Commutative Ring Theory and Applications, June 10, 2001, Fez, Morocco, “Ramification Theory of Valuations”.
- (68) Seminaire sur les Singularites, University of Paris VII, June 7, 2001 “Ramification of Valuations”.
- (69) AMS Meeting, Invited Address, Lawrence, Kansas, March 31, 2001, “Monomialization of Morphisms”.
- (70) AMS Meeting, Special Session in Algebraic Geometry, Lawrence, Kansas, March 30, 2001, “Vanishing of Differentials along Ideals”.
- (71) CMS Meeting, Symposia in Algebraic Geometry, Vancouver, December 10, 2000, “Monomialization of morphisms”.
- (72) Algebraic Geometry Seminar, University of Toronto, September 25, 2000, “Monomialization of Morphisms”.
- (73) AMS Meeting, Special Session in Commutative Algebra and Algebraic Geometry, Toronto, September 24, 2000, “Monomialization of Morphisms”.
- (74) Algebra Conference at University of Kansas, September 2, 2000, “Monomialization of Morphisms”.
- (75) Conference in honor of Abhyankar’s 70th Birthday, Purdue University, July 22, 2000, “Monomialization of Morphisms”.
- (76) University of Valladolid, Spain, July 17, 2000, “Asymptotic Regularity”.
- (77) University of Valladolid, Spain, July 4 and July 11, 2000, 2 talks on “Monomialization of Morphisms”.

- (78) *Algebre Commutative et Geometrie Algebrique*, CIRM, Marseille - Luminy, June 9, 2000, “Monomialization of Morphisms”.
- (79) Conference at University of Nebraska, May 29, 2000, “Monomialization of Morphisms”.
- (80) AMS Meeting, Special Session in Commutative Algebra and Algebraic Geometry, Lowell Massachusetts, March 30, 2000, “Asymptotic regularity and Seshadri constants”.
- (81) Number Theory Seminar, Boston University, March 13, 2000, “Algebraic Fundamental Groups of Curve Singularities”.
- (82) Algebraic Geometry Seminar, Harvard University, February 22, 2000, “Monomialization of Morphisms”.
- (83) Algebra Seminar, Northeastern University, February 7, 2000, “Asymptotic Regularity and Seshadri Constants”.
- (84) Workshop on Invariant Theory, University of Pune, Pune, India, Dec 26-27, 1999, Course of 3 Lectures on “An Introduction to Resolution of Singularities”.
- (85) Colloquium talk, Institute of Mathematical Sciences, Madras, India, Dec. 20, 1999, “Asymptotic regularity and Seshadri constants”.
- (86) Colloquium talk, Mehta Research Institute of Mathematics and Mathematical Physics, Allahabad, India, Dec. 14, 1999, “Monomialization of Morphisms”.
- (87) Colloquium talk, Indian Institute of Science, Bangalore, India, Dec. 7, 1999, “Asymptotic regularity and Seshadri constants”.
- (88) Conference on Commutative Algebra, Tokyo, Japan, Nov. 23-26, 1999, 2 hour long talks. “Monomialization of morphisms” and “Asymptotic regularity”.
- (89) Algebraic Geometry Seminar, University of Tokyo, Japan, Nov. 22, 1999, “Monomialization of morphisms”.
- (90) Course of 15 90 minute talks on resolution of singularities and mappings, Chennai Mathematical Institute, Madras, India, Oct. 18 - Dec. 20, 1999.
- (91) Special Session in Commutative Algebra, AMS meeting, Salt Lake City, Sept. 25 - 26, 1999, “Monomialization of Projective Morphisms”.
- (92) *Kommutative Algebra and Algebraische Geometrie*, Oberwolfach, Germany, August 8 - 14, 1999, “Local monomialization of morphisms” (1 hour talk).
- (93) International Conference on Valuation Theory, Saskatoon, Canada, July 24- August 4, 1999, “Local monomialization of morphisms” (1 hour plenary talk).
- (94) Seminar talk, Univ. Reggio Calabria, June 20, 1999, “Asymptotic Regularity”.
- (95) Conference on Commutative Algebra and Algebraic Geometry, Univ. Messina, Sicily, Italy, June 16 - 19, 1999, “Monomialization of Morphisms” (1 hour plenary talk).
- (96) Colloquium talk, Univ. Kansas, Spring 1999, “Factorization and monomialization of morphisms”.

- (97) Special Session in Commutative Algebra, AMS meeting, Urbana, Illinois, March 18-21, 1999, "Local factorization of birational mappings".
- (98) Special Session in Commutative Algebra and Algebraic Geometry, AMS meeting, San Antonio, January 15 - 16, 1999, "Asymptotic Behaviour of Regularity".
- (99) Special Session in Singularities in Algebraic and Analytic Geometry, AMS meeting, San Antonio, January 13 - 15, 1999, "Monomialization and Factorization of Mappings".
- (100) Colloquium Talk, Michigan State University, November 12, 1998, "Local factorization and monomialization of morphisms".
- (101) Algebraic Geometry Seminar, Johns Hopkins University, September 29 and 30, 1998, "Local factorization and monomialization of morphisms".
- (102) Special Session on Commutative Algebra, AMS meeting, Chicago, September 12-13, 1998, "Simultaneous resolution of singularities".
- (103) Colloquium Talk, Indian Institute of Technology, Bombay, India, July 20, 1998 "Cohen-Macaulay coordinate rings of blowup schemes".
- (104) Colloquium Talk, SPIC Science Foundation, Madras, India, July 13, 1998, "Local factorization and monomialization of morphisms".
- (105) Colloquium Talk, Tata Institute of Fundamental Research, Bombay, India, June 23, 1998, "Local factorization and monomialization of morphisms".
- (106) Conference on Homological Methods, Genoa, Italy, June 9, 1998, "Simultaneous resolution of singularities".
- (107) University of Nebraska Centennial Celebration, May 16, 1998, "Factorization and monomialization of morphisms".
- (108) Special Session on Commutative Algebra, AMS meeting, Louisville, March 21, 1998, "Local factorization and monomialization of Morphisms".
- (109) Special Session on Commutative Algebra, AMS meeting, January, 1998, "Local factorization and monomialization of Morphisms".
- (110) Colloquium talk, University of Versailles (France), December 18, 1997, "Factorization of birational morphisms".
- (111) Colloquium talk, University of Versailles (France), December 11, 1997, "The Riemann-Roch problem".
- (112) Special Session on Commutative Algebra, AMS meeting, Montreal, Canada, Sept 26-27 1997, "Monomialization and factorization of generically finite morphisms".
- (113) Colloquium Talk, Universität Regensburg (Germany), July 11, 1997, "Monomialization and factorization of generically finite morphisms".
- (114) *Algebre Commutative et Geometrie Algebrique*, CIRM, Marseille - Luminy, May 5-9 1997, "Local factorization of n-dimensional birational maps".
- (115) Missouri Algebraic Geometry Conference, Columbia, April 15, 1997, "Local factorization of n-dimensional birational maps".
- (116) Route 81 Conference, Syracuse, New York, Oct 26-27, 1996, Cohen Macaulay coordinate rings of blowup schemes".

- (117) Special Session on Commutative Algebra, AMS meeting, Seattle, Washington, August 1996, "Local factorization of birational maps".
- (118) Algebraic Geometry Seminar, Washington University, July 1996 (4 hours), "Local factorization of birational maps".
- (119) Seminar Talk, Universität Essen (Germany), May 1996, "Nagata's conjecture".
- (120) Kommutative Algebra and Algebraische Geometrie, Oberwolfach, Germany, May 5 - 11, 1996, "Local factorization of birational maps" (1 hour talk).
- (121) Special Session on Commutative Algebra and Algebraic Geometry, AMS meeting, Orlando, Fl, Jan 1996, "Local Factorization of birational morphisms".
- (122) Algebraic Geometry Seminars, Purdue University, 3 talks, Nov. 28 - 29, 1995, "Local Factorization of birational maps".
- (123) Colloquium Talk: Purdue University, Nov. 28, 1995, "Local Factorization of birational maps".
- (124) Colloquium Talk: Institute of Mathematical Sciences, Madras, July 1995, "Symbolic Algebras of Monomial Curves".
- (125) Seminar Talk, Universität Bochum (Germany), June 1995, "The Riemann Roch Problem".
- (126) Über Seminar, Universität Essen (Germany), June, 1995, "Symbolic Algebras of Monomial Curves".
- (127) A Short Course on Complete Ideals, Universität Essen (Germany), June 1995.
- (128) Special Session on Homological Aspects of Commutative Ring Theory, AMS meeting, Kent, Ohio, Nov. 1995, "Local Factorization of Birational morphisms".
- (129) Computational Aspects of Commutative Algebra and Algebraic Geometry, Oberwolfach, Germany, May 21 - May 27, 1995 (Hour Talk), "Local Factorization of Birational morphisms".
- (130) Special Session on Commutative Algebra, AMS Meeting, Orlando, Fl, March 1995, "Local Factorization of Birational morphisms".
- (131) Special Session on Rees Algebras and Related Topics, AMS Meeting, San Francisco, CA, Jan 1995, "Symbolic Algebras of Monomial curves".
- (132) Special Session on Algebraic Geometry, AMS Meeting, Norman, Oklahoma, October 1994, "Symbolic Algebras of Monomial curves".
- (133) Colloquium Talk: University of Missouri -St.Louis (UMSL), September 13, 1994, "Purity of the branch locus and Lefschetz Theorems".
- (134) Commutative Algebra: A satellite conference to The International congress of Mathematicians; Vechta, Germany, August 12-19, 1994, "Purity of the branch locus and Lefschetz Theorems".
- (135) Colloquium Talk: Institute of Mathematical Sciences, Madras, July 1994, "The Riemann Roch Problem".
- (136) Colloquium Talk: Indian Institute of Technology, Madras, July 1994, "Purity of the branch locus and Lefschetz Theorems".

- (137) Colloquium Talk: Ramanujan Institute for Advanced Study in Pure Mathematics, Madras, India, July 1994, "An intrinsic criterion for isomorphism of singularities".
- (138) A Short Course on "Linear Systems and Riemann-Roch" SPIC Science Foundation, Madras, India, June-July 1994.
- (139) Colloquium Lecture: SPIC Science Foundation, Madras, India, June 1994, "Symbolic Algebras of Monomial Curves".
- (140) Seminar Talk: Johns Hopkins University, March 1994, "The Riemann Roch Problem".
- (141) Seminar Talk: Rutgers University, November 1993, "Purity of the branch locus and Lefschetz Theorems".
- (142) Seminar Talk: Northeastern University, October 1993, "Purity of the branch locus and Lefschetz Theorems".
- (143) Algebraic Geometry Seminar: Harvard University, October 1993, "The Riemann Roch Problem".
- (144) Special Session in Theory of Rings and Modules, AMS Meeting, Salt Lake City, Utah, April 1993, "Purity of the branch locus and Lefschetz Theorems".
- (145) Colloquium Talk: University of Kansas, October 1992, "Purity of the branch locus and Lefschetz Theorems".
- (146) AMS-IMS-SIAM Joint Summer Research conference, Commutative Algebra: Syzygies, Multiplicities and Birational Algebra, Mt.Holyoke, July 4-9, 1992, The Birational Algebra Seminar (half-hour talk) "Purity of the branch locus and Lefschetz Theorems".
- (147) AMS-IMS-SIAM Joint Summer Research conference, Commutative Algebra: Syzygies, Multiplicities and Birational Algebra, Mt.Holyoke, July 4-9, 1992: (hour talk), "Complete Ideals".
- (148) Special Session in Commutative Algebra, AMS meeting, Springfield, Missouri, March 1992, "An intrinsic criterion for isomorphism of singularities".
- (149) Special Session in Commutative Algebra, AMS meeting, Fargo, ND, October 1991, "The Riemann Roch Problem".
- (150) Colloquium Talk: University of Kansas, September 1991, "The Riemann Roch Problem".
- (151) Special Session in Commutative Algebra, AMS Orono Mathfest, Maine, August 1991, "The Riemann Roch Problem".
- (152) Mid West-Great Plains Workshop in Commutative Algebra, Columbia, Missouri, June 1991, "On unique and almost unique factorization of complete ideals".
- (153) Colloquium Talk: Institute of Mathematical Sciences, Madras, India, March 1991, "On unique and almost unique factorization of complete ideals".
- (154) Colloquium Talk: SPIC Science Foundation, Madras, India, March 1991, "An intrinsic criterion for isomorphism of singularities".
- (155) Colloquium Talk: Tata Institute of Fundamental Research, India, February 1991, "An intrinsic criterion for isomorphism of singularities".
- (156) Colloquium Talk: Washington University, St.Louis, December 1990, "An intrinsic criterion for isomorphism of singularities".

- (157) Special Session in Algebraic Geometry, AMS meeting in Louisville, Kentucky, January 1990, “An intrinsic Criterion for isomorphism of singularities”.
- (158) Seminar Talk: Purdue University, May 1989, “An intrinsic criterion for isomorphism of singularities”.
- (159) Seminar Talk: Purdue University, November 1988, “On Fano 3 folds”.
- (160) Seminar Talk: University of Utah, April 1988, “Unique and semi-unique factorization of complete ideals”.
- (161) Seminar Talk: Michigan State University, April 1988, “Unique and semi-unique factorization of complete ideals”.
- (162) Special session in Commutative Algebra, American Mathematical Society (AMS) meeting, Knoxville, Tennessee, March 1988, “Unique and semi-unique factorization of complete ideals”.
- (163) Colloquium Talk: Louisiana State University, March 1988, “Unique and semi-unique factorization of complete ideals”.
- (164) Colloquium Talk: Oklahoma State University, March 1988, “Unique and semi-unique factorization of complete ideals”.
- (165) Seminar Talk: Purdue University, February 1988, “Unique and semi-unique factorization of complete ideals”.
- (166) Colloquium Talk: University of Missouri, February 1988, “Unique and semi-unique factorization of complete ideals”.
- (167) Colloquium Talk: University of Notre Dame February 1988, “Unique and semi-unique factorization of complete ideals”.
- (168) Seminar Talk: University of Pennsylvania, February 1988, “Unique and semi-unique factorization of complete ideals”.
- (169) Algebraic Geometry Seminar, Columbia University, 1987, “On unique and almost unique factorization of complete ideals”.
- (170) Three Folds Conference, Columbia University, 1987, “Finite Generation of Symbolic Algebras”.
- (171) Colloquium Talk: Seton Hall University, NJ, 1987, “Complete Ideals”.
- (172) Seminar Talk: Michigan State University, January 1987, “Symbolic Algebras”.
- (173) Algebraic Geometry Seminar: Columbia University, New York, October 1986, “Counterexamples to a Conjecture of Fujita”.
- (174) Algebraic Geometry Seminar: Columbia University, New York, April 1985, “Zariski Decomposition”.
- (175) Colloquium Talk: Suffolk University, Boston, Mass. April 1985, “Zariski Decomposition”.
- (176) Colloquium Talk: Wellesley College, Wellesley, Ma., March 1985, “Zariski Decomposition”.
- (177) Colloquium Talk: University of Notre Dame, Indiana, March 1985, “Zariski Decomposition”.