VITA
Roy C. Smith

Date and Place of Birth: September 16, 1942, Nashville, Tennessee

Academic Degrees:

B.A.	1965	Harvard University,
MA.	1967	Brandeis University
Ph.D.	1977	University of Utah; Advisor: C.H. Clemens; Thesis: On the degree of the Prym mapping from curves of genus 6 to abelian varieties of dimension five.

Professional Experience:

1970-1972	Lecturer, Central Washington State College
1972-1974	Assistant Professor, Central Washington State College
1977-1979	Assistant Professor, University of Georgia
Fall 1979	Visiting Assistant Professor, Univ. of North Carolina, Chapel Hill
1980- 1981	Visiting Scholar, Harvard University
1981- 1983	Assistant Professor, University of Georgia
Fall 1983	Visiting Professor, University of Rome, and University of Leiden
1983- 1989	Associate Professor, University of Georgia
Fall 1987	Consultant in algebraic geometry, Univ. of Erlangen-Nuremberg
1989-present	Professor, University of Georgia
FaII 1992	Member, Mathematical Sciences Research Institute. Berkeley

Prizes and Honors:

NSF Postdoctoral Fellow, Harvard University, 1980-81.
Creative Research Medal, University of Georgia, 1990.
Member, Mathematical Sciences Research Institute, Berkeley, 1992.
McKay Award, UGA Math Dept. 2003-2006.
Honoree, International conference on "Curves and abelian varieties and their interactions, on the occasion of the 65th birthday of Roy Smith."
http://www.math.uga.edu/~valery/conf07/conf07.html

Bibliography

Refereed Journal Publications:

1. (with R. Donagi). The degree of the Prym map onto the moduli space of five dimensional abelian varieties, in Journées de Geometric Algebrique d'Angers, Sijtof-Noordhof, 1980. ed. A. Beauville, 143-155.
2. (with R. Donagi), The Torelli problem for Prym varieties of dimension five, in Geometria Algebraica y Algebra, CIEA del IPN. Mexico, 1980, ed. H. Tapia. 80-84.
3. (with R. Donagi). The Structure of the Prym map. Acta. Math. vol. 146 (1981).

25-102.
4. (with R. Friedman) The generic Torelli theorem for the Prym map, Invent. Math. 67(1982), 473-490.
5. (with R Friedman) Singularities of period maps and the weak global Torelli problem, in Proceedings of Symposia in Pure Mathematics, vol. 40(1983), part I, Am. Math. Soc., 391-397.
6. The generic Torelli problem for Prym varieties and intersections of three quadrics. chapter XI, Topics in Transcendental Algebraic Geometry, Annals of Math Studies #106, Princeton Univ. Press, 1984, ed. P. Griffiths. 209-226.
7. (with R. Varley) On the geometry of N_0, Rend. Sem. Mat. Univers. Politecn. Torino, 42, 2(1984), 29-37.
8. (with R. Varley) Components of the locus of singular theta divisors of genus five, Algebraic Geometry, Lecture Notes in Math 1124, Springer 1085, 338-416.
9. (with R. Varley) The tangent cone to the discriminant, Canadian Math. Soc. Conference Proceedings. Vol. 6(1986), 443-460.
10. (with H. Tapia) The connection between linear series on curves and Gauss maps on subvarieties of their jacobians, Contemporary Mathematics vol. 58, part I, (1986). 225-238.
11. (with R. Friedman) Degenerations of Prym varieties and intersections of three quadrics, Invent, Math., 85(1986). 615-635.
12. (with H. Tapia) Una nota sobre curvas de género quatro. Aportaciones Matematica, Comunicaciones. Soc. Mat, Mex. vol. 1. (1986), 366-375.
13. (with H. Tapia) A note on curves of even genus, Bol. Soc. Mat. Mex., vol. 31, no. 2, Oct. 1986. 47-49.
14. (with R.Varley) Gauss maps and first order deformations of singular hypersurfaces, Bol. Soc. Mat. Mex., vol 31. no. 2, Oct. 1986, 51-56.
15. (with R.Varley) Tangent cones to discriminant loci for families of hypersurfaces. Transactions of the A.M.S. 307(1988), 647-674.
16. (with R. Varley) Deformations of singular points on theta-divisors; Proceedings of Symposia in Pure Mathematics, vol 49(1989), pt. 1, 571-579.
17. The Jacobian Variety of a Riemann Surface and its Theta Geometry, in Lectures on Riemann Surfaces; ed. Cornalba, Gomez-Mont, Verjovsky; World Scientific, 1989. 350-427.
18. (with H. Tapia) The Gauss map on subvarieties of Jacobians of curves with g^2_d's, Proceedings of the Workshop on Algebraic Geometry and Complex Analysis, Patzcuaro. Michoacan, Mexico, August 1987, Lecture Notes in Math. #1414. Springer Verlag, 1989, l69-180.
19. (with R. Varley) Deformations of Theta-Divisors and the Rank Four Quadrics Prob1em, Compositio Math, 76(1990), 367-398.
20. (with R. Varley) Singularity theory applied to Theta-divisors, Algebraic Geometry. Proceedings of the US-USSR Symposium, Lecture Notes in Mathematics 1479, Springer, 1991, 238-257.
21. (with R. Varley) A homological criterion for reducibility of analytic spaces, with application to characterizing the theta divisor of a product of two general principally polarized abelian varieties. Manuscripta Mathematica, 81(l993) 263-282.

22. (with R. Varley) Multiplicity g points on theta divisors, Duke Math Jour., vol. 82, No. 2, (1996), 319-326.
23. On Teaching. The Mathematics Educator, vol. 8, no. 1, Summer 1997.
24. (with R. Varley), On the geometry of two dimensional Prym varieties, Pacific Journal of Mathematics, Vol.188, No.2. 1999, 353-368.
25. (with R. Varley), The curve of Prym - canonical Gauss divisors on a Prym theta divisor, Transactions of A.M.S. vol. 353. no. 12 (2001), 4949-4962.
26. (with R. Varley), A Riemann singularities theorem for Prym theta divisors, with applications, Pacific Journal of Math, vol. 201, no. 2. Dec 2001, 479-509.
27. (with R. Varley), A Torelli Theorem for Special Divisor Varieties X Associated to Doubly covered Curves. Intl. J. Math, vol 13. no. 1, Feb 2002, 67-92.
28. (with R. Varley), The Prym Terelli problem: an update and a reformulation as a question in birational geometry, article in the book Contemporary Mathematics, vol. 312, Symposium in honor of C. H Clemens, A. Bertram, J.A. Carlson, H. Kley, editors, AMS 2002.
29. (with R. Varley) A necessary and sufficient criterion for Riemann's singularity theorem to hold on a Pryrm theta divisor. Compositio Mathematica 140 (2004), 447-458.
30. (with R. Varley) Infinitesimal study of factorization of the Prym map, Annali di Matematica Pura ed Applicata, vol. 183. No. 3, Aug. 2004, 401-419.
31. The Pfaffian Structure Defining a Prym Theta-Divisor, Contemporary Mathematics. Vol. 397, 2006, 215-236.

Unrefereed Web based publications: http://www.math.uga.edu/~roy/

1. A primer of linear algebra. (Concise but rigorous treatment of basic dimension theory, matries and linear maps, eigenvectors, spectral theorem for symmetric operators, jordan and rational canonical forms, 14 pages.)

2. From classical Riemann-Roch to Hirzebruch-Riemann-Roch. (An introduction to this fundamental theorem and Hirzebruch's generalization, 53 pages.)

3. Graduate algebra course notes. (detailed notes for a one year course in basic algebra for beginning graduate students, about 400 pages.)

4. Elementary algebra course notes. (Notes for a one semester course introducing abstract algebra to undergraduates, 192 pages.)

5. Brief introductions to topics in algebraic geometry, (Riemann's method of classifying power series in terms of curves, 6 pages, and the concept of schemes, 5 pages.)

6. Intensive one semester course on graduate algebra, PhD prelim preparation, 104 pages.

Unpublished Notes:

1. lntroduction to Prym varieties, 50 pp.
2. Transformation Geometry, (classification of Euclidean plane isometries) 15 pp.
3. Algebraic plane curves over the complex numbers, 136 pp.
4. Topics in elementary complex analysis and elliptic curves, 103 pp.
5. Basic ideas from calculus, real numbers, continuity, limits, integrals, derivatives, Mean value theorem. Fundamental theorem of calculus) 95 pp.
6. Notes on Differential Topology
7. Introduction to Algebraic Varieties
8. Introduction to Algebraic Surfaces
9. Introduction to Sheaves and Cohomology
10. Basic results on Rational Ruled Surfaces, i.e. P^1 bundles over curves.

Research Talks:

1. University of Angers, France (speaker, international conference on algebraic gcometry), 1979.
2. Oaxtepec. Mexico (invited speaker, international conference on algebra and algebraic geometry), 1979.
3-4. Harvard University (2 talks in the algebraic geometry seminar), 1981).
5. Yale University (invited colloquium speaker), 1980.
6. Brown University (invited colloquium speaker), 1980.
7-11. Centre de Investigacion Avanzado, Mexico city (5 invited seminar talks), 1980.
12-16. Harvard University (5 talks in the algebraic geometry seminar), 1981.
17. Institute for Advanced Study, Princeton (invited speaker for Special Year in algebraic geometry), 1981.
18. Columbia University (invited seminar speaker), 1981.
19. A.M.S. summer meeting on Singularities, Arcata, California (lecture), 1981.
20. Varenna, Italy international conference on threefolds, invited seminar talk), 1981.
21. University of Rome, Italy (invited seminar talk), 1982.
22. University of Naples, Italy (invited seminar talk). 1982.
23. Ravello, Italy (invited speaker, international conference on unsolved problems in algebraic geometry), 1982.
24. Regional Conference on Intersection Theory. George Mason University (invited speaker), 1983.
25-26. University of Utrecht, Holland (invited colloquium and seminar speaker), 1983.
27-28. University of Leiden. Holland (invited colloquium and seminar speaker), 1983.
29. University of Amsterdam, Holland (invited colloquium), 1983.
30. University of Rome I, Italy (invited seminar speaker), 1983.
31. University of Rome II, Italy (invited seminar speaker), 1983.
32. University of Torino, italy, Geometry Institute (Invited seminar speaker), 1983.
33. University of Pisa, Italy (invited seminar speaker), 1983.
34. University of Florence, Italy (invited colloquium speaker), 1983.

35. University of Pavia, Italy (invited seminar speaker), 1983.
36. International Conference in algebraic geometry of University of Barcelona, Sitges, Spain, (invited speaker), 1983.
37. Kühlungsborn, East Germany (invited speaker, international conference in algebraic geometry), 1984.
38. Lefschetz Centennial Conference, Mexico City, in honor of 100th anniversary of birth of Solomon Lefschetz, Centro de Investigacion Avanzados (invited speaker), 1981.
39. Pacific Northwest Geometry Conference, University of Utah (Invited principal speaker), 1985.
40. International Conference in algebraic geometry celebrating 100th anniversary of Humboldt University, Berlin, E. Germany (invited speaker), 1985.
41, University of North Carolina, Chapel Hill, (invited speaker, special year in singularities), 1986.
42. A.M.S. regional meeting, Charlotte, North Carolina (invited speaker, special session in algebraic geometry), 1986.
43-44. University of Pavia, Italy, (invited visitor and seminar speaker, two talks), 1987.
45-47. University of Erlangen-Nurenberg, W. Germany (invited visiting research consultant, fall quarter, 3 seminar talks), 1987.
48. A.M.S. regional meeting, Lawrence, Kansas (invited speaker, special session in algebraic geometry), 1986.
49. University of Kansas, Lawrence (invited colloquium speaker), 1988.
50. Oklahoma State University, Stiliwater. (invited seminar speaker), 1988.
51. U.S. - U.S.S.R. Algebraic Geometry Symposium, University of Chicago, (among speakers requested to speak by poll of international audience), 1989.
52. A.M.S. Summer meeting on Schottky Problems. University of Maachusetts Amherst, (lecture), 1990.
53. Algebraic Geometry Seminar, invited lecture, Special Year in Algebraic Geometry, Mathematical Sciences Research Institute, Berkeley, 1992.
54. International meeting on abelian varieties and linear series, Egloffstein. Germany. 1993, invited speaker.
55. Invited 1 hour speaker on Abelian Varieties, at NF sponsored algebraic geometry conference at Oklahoma State University, April 1998.
56. Invited speaker in (2 hour) Algebraic Geometry seminar, Ponitifica Universidad Catolica, Santiago, Chile, July 1999.
57. Invited speaker at a meeting on Complex Algebraic Geometry, Universidad Tecnica Federico Santa Maria, Valparaiso, Chile, July 27-28, 1999.
58. Invited Colloquium speaker, Universidad Tecnologia di Chile, July, 1999.
59. Invited researcher (one week) and seminar speaker, Centro de Investigacion en Matematicas (CIMAT), Guanajuato, Mexico, August, 1999.
60. Tufts University, Geometry seminar speaker, February, 2000.
61. University of Utah, C. H. Clemens 60th birthday celebration, invited principal speaker, March, 2000.
62. Special Sessions Talk: “Multiplicities of singular points on Prym theta divisors”, at AMS Regional Meeting, Oct. 14, 2001.
63. Geometry seminar talk on Torelli’s problem, Georgia Tech, Nov. 16, 2001.
64. Invited to Florence, Italy as a principal speaker for conference honoring Fabio

Bardelli, held May 22-25, 2002 (unable to attend).
65. Invited to Salamanca Spain to speak at International meeting on abelian varieties, honoring 60th birthday of Sevin Recillas. June 2004, (unable to attend).

Invited Courses:

1. Five week course (25 lectures) on Algebraic Curves, Perugia, Italy, at request of Italian National Research Council (CNR), 1980.
2. University of Torino, Italy, (one week course on Jacobian varieties for Italian CNR), 1981.
3. Two week course on Riemann Surfaces (6 lectures), Trieste, Italy, International centre for Theoretical Physics, 1987.

Participant:

1. International Congre of Mathematicians, Berkeley, California, 1986.
2. International Congress of Mathematicians, Kyoto, Japan, 1990.
3. lntt.rnational meeting on Algebraic Geometry, Tokyo, Japan, 1990.
4. Summer meeting on Algebraic Geometry, Park City Utah, 1993.
5. Seminar on moduli of surfaces, University of Utah, Salt Lake City, 1994.
6. Summer meeting on Algebraic Geometry, Santa Cruz, California, 1995.
7. Summer meeting on symplectic geometry and topology, Park City, Utah, 1997.
8. Summer meeting on number theory sponsored by the Institute for Advanced Study, Park City, Utah, June-July 1999.
9. Centennial meeting of the AMS 2000, UCLA, July 2000.
10. Summer meeting on Quantum Cohomology, Park City, Utah, June-July, 2001.
11. AMS Summer Research Meeting on Algebraic Geometry, Seattle, July 2005.
12. Algebraic geometry conference in (unofficial) celebration of 60^{th} birthday of A. Beauville, Paris, France, Institut Henri Poincare, June 2007.

Predoctoral Awards and Fellowships:

1. National Merit Scholar, Harvard University, 1960-65.
2. NDEA Title IV Fellow. Brandeis University, 1965-70.
3. Department of Mathematics Special Teaching Fellow, University of Utah, 1974, 1976.
4. President, Gardner Research Fellow, University of Utah, 1975.

NSF Grants:

1. Project Director, A.M.S. Regional Conference in Algebraic Geometry, 1979, University of Georgia, (4/15/79)-(9/30/79). NSF award MCS-78-20767, $15,689.
2. Principal Investigator, NSF Research Grant. University of Georgia, (6/1/79)-(11/30/81), award #MCS-79-03717, $15,000.
3. NSF Postdoctoral Research Fellow, (one of 10 awards in the country in mathematics), Harvard University, (9/1/80)-(9/1/81), award #MCS-80-17151, $17,000.
4. Principal Investigator, NSF Research Grant, University of Georgia. (6/1/81)-

(11/30/83), award #MCS-8 1-05321, $12,400.
5. Joint Principal Investigator (with R. Varley), NSF Research Grant, University of Georgia, (3/ 30/84)-(9/30/86). #DMS-3- 17078. $61,450.
6. Joint. Principal Investigator (with R. Varley), NSF Research Grant, University of Georgia, (7/ 1/86)-(12/31/88). #DMS-86-0321, $97,800.
7. Joint Principal Investigator (with R. Varley), NSF Research Grant. University of Georgia, (7/ 1/88)-(12/31/90), #DMS-88-03487, $81,550.
8. Travel Grant, International Congress of Mathematicians, Kyoto, Japan, 1990; $1,500.
9. NSF Supported Member, Fall 1992, Special Year in Algebraic Geometry. Mathematical Sciences Research Institute, Berkeley, $6,500.
10. Joint Principal Investigator (with R. Varley), NSF Research Grant, University of Georgia, (7/15/92) -(12/31/94), #DMS 92-08282, $57,200.

Tota1 NSF Grants: $366,089.

Departmental and University Service:

College of Arts and Sciences Academic Advisor, 1978.
Organizer (for about 15 years), speaker for departmental algebraic geometry seminar.
Mathematics Department Head Search Committee, 1982-83.
Director, NSF-supported Summer seminar for gifted high school mathematics students, 1987, [under grant #6].
Department of Economics Graduate Program Review, 1984.
Graduate coordinator for Mathematics Department, Sept 1986 - Aug. l988.
Mathematics Department Ad Hoc Budget Committee, Spring 1988.
Executive Committee, Mathematics Department, Aug. 1988-Aug. 1990.
Personnel Committee, Mathematics Department, Aug. 1990-Sept. 1992.
Budget Committee, Mathematics Department, Dec. 1990.
Head, Personnel Committee, Mathematics Department, Aug, 1993 - July, 1995.
Member, Personnel Committee, Mathematics Department, Aug, 1995 - July, 1999.
Member, Executive Committee, Mathematics Department. Aug, 1999 – July, 2003.
Chair, Committee to invite the 2001 Cantrell lecturer, Mathematics Department.
Member, Committee to invite the 2002 Cantrell lecturer, Mathematics Department.
Prepared Successful Creative Research Medal Award folders for Elham Izadi and Valery Alexeev, (awarded 2001, 2002).
Vice Chair Executive Committee, 2003-2004.
Prepared successful Research Professor folder for Valery Alexeev (awarded 2004)
Prepared folder for Promotion of Elham Izadi to Full Professor (2005-2006)
Supervised 7 year Departmental Self Study (2003-2004)
Member, Personnel Committee, 2004- 2005.
Member, Graduate Committee 2005 – 2007
Member Executive Committee 2007-present.

Teaching Assignments: (since 1981 only)

Fall 1981	MAT 265; MAT 453/653
Winter 1982	MAT 253; MAT 454/654
Spring 1982	MAT 455/655
Fall 1982	MAT 105; MAT 891 (algebraic plane curves, 1)
Winter 1983	MAT 106; MAT 891 (algebraic plane curves, 2)
Spring 1983	MAT 891 (complex algebraic varieties)
Winter 1984	MAT 116; MAT 263H
Spring 1964	MAT 256; MAT 264H
Fall 1984	MAT 843 (groups); MAT 265H
Winter 1985	MAT 844 (rings); MAT 358
Spring 1985	MAT 845 (modules); MAT 256
Fall 1985	MAT 891 (introduction to algebraic geometry); MAT 256
Winter 1986	MAT 891 (introduction to algebraic geometry); MAT 253
Spring 1986	MAT 891 (introduction to algebraic geometry); MAT 358
Fall 1986	MAT 897 (complex algebraic curves, 1)
Winter 1987	MAT 897 (complex algebraic curves, 2)
Spring 1987	MAT 897 (complex algebraic surfaces)
Winter 1988	MAT 460/660
Spring 1988	MAT 358; MAT 461/661
Fall 1988	MAT 253; MAT 440/640
Winter 1989	MAT 253; MAT 441/641
Spring 1989	MAT 256; MAT 442/642
Fall 1989	MAT 814
Winter 1990	MAT 815
Spring 1990	MAT 816
Winter 1991	MAT 410/610
Spring 1991	MAT 411/611; MAT 520/720
Summer 1991	MAT 254
Fall 1991	MAT 846
Winter 1992	MAT 847
Spring 1992	MAT 848
Summer 1992	MAT 254; MAT 522/722
Winter 1993	MAT 253; MAT 253
Spring 1993	MAT 253
Fall 1993	MAT 431/631
Winter 1994	MAT 432/632
Spring 1994	MAT 433/633
Summer 1994	MAT 253; MAT 253
Fall 1994	MAT 253; MAT 253
Winter 1995	MAT 254
Summer 1995	MAT 253; MAT 256
Fall 1995	MAT 843
Winter 1996	MAT 844
Spring 1996	MAT 845
Summer 1996	MAT 704

Fall 1996 MAT 522/722; MAT 893
Winter 1997 MAT 254
Spring 1997 MAT 520/720
Fall 1997 MAT 256; MAT 814
Winter 1998 MAT 815
Spring 1998 MAT 816
Fall 1998 MAT 2500; MAT 4080/6080
Spring 1999 MAT 8000; MAT 8320
Fall 1999 MAT 2210; MAT 2210
Spring 2000 MAT 2200; MAT 2200
Fall 2000 MAT 2300H; MAT 3200; FRES 1010
Spring 2001 MAT 5001, MAT 8330
Fall 2001 MAT 2210; MAT 8300 (Intro to projective varieties)
Spring 2002 MAT 8330 (Intro to sheaf cohomology)
Summer 2002 MAT 8000
Fall 2002 MAT 4220/6220; MAT 2210
Spring 2003 MAT 4000/6000; MAT 8800
Fall 2003 MAT 2210; MAT 8300 (Intro to projective varieties)
Spring 2004 MAT 2200; MAT 8800 (complex algebraic curves)
Fall 2004 MAT 2310H; MAT2200
Spring 2005 MAT 2200; MAT 3000
Fall 2005 MAT 3200; MAT 2210
Spring 2006 MAT 2700; MAT 4000/6000
Fall 2006 MAT 2210; MAT 8000/8005
Spring 2007 MAT 2250
Fall 2007 MAT 2260; MAT 5200/7200

Referee for:

Numerous NSF proposals since 1982.
Ph.D. thesis of F. Cossec, Yale mathematics department, 1982.
On Osculating Cones ..., Compositio Math, by F. Bardelli and L. Verdi, 1987.
Le Lieu Des Varietes, ..., Ann. de l'E.N.S. by O. Debarre, 1990.
Bunting Institute, Harvard-Radcliffe, 1995.
Journal of Algebraic geometry, 1998
Amer. Journal of Math., 2001
Calculus, the Elements, by Michael Comenetz, for World Scientific Publ., 2003
Annals of Math, 2005
Transition to Higher Math., by Dumas/ McCarthy, McGraw-Hill. 2005
Annals of Math, 2006

Graduate Program:

Member of Graduate Faculty since February, 1983.
Served on numerous MA. and Ph.D. advisory committees since 1983, (advising on courses, grading qualifying exams, evaluating for support, etc.)

Member, Graduate Admissions Committee, (several times)
Frequent author, grader and evaluator of M.A., and M.A.M.S. exams.
Helped develop graduate course 846-7-8, Introduction to algebra geometry.
Helped write syllabi for new semester versions of graduate algebraic geometry courses.
Graduate Coordinator for Mathematics, September 1986 - August 1988.
Wrote 400 page book on Graduate, available free online
Wrote and graded numerous PhD prelim exams in algebra and complex analysis.
Chair, Analysis Prelim Committee, Spring and Fall 2005.
Chair, Analysis Prelim Committee, Spring and Fall 2006.
Wrote algebra prelim, December 2006.
Member Graduate Committee 2005-2007.
Revised algebra prelim syllabus several times.
Wrote, posted, study guide to algebra references for prelim.
Graded algebra prelim Spring 2007
Wrote and graded algebra prelim August, 2007
Helped place graduate Michael Guy as Ritt Instructor, Columbia University, 2007-2008.

Undergraduate Program:

Advised numerous undergraduate students for 30 years.
Wrote numerous reference letters (>50) for graduating, and former, undergraduate and graduate students.

January 2008