

:

List of Publications

Refereed Published Technical Journal Articles

- [1] "Cycles on Fermat hypersurfaces", *Compositio Math.* 42 (1981), 121-142.
- [2] "On subvarieties of abelian varieties", *Invent. Math.* 62 (1981), 459-479.
- [3] "A characterization of five-dimensional Jacobian varieties", *Invent. Math.* 67 (1982), 395-422.
- [4] "A united-set formula", *Bull. Amer. Math. Soc.* 8, No.2 (1983), 329-332.
- [5] "On projective varieties of codimension 2", *Invent. Math.* 73 (1983), 333-336.
- [6] "The structure of Gauss-like maps", *Compositio Math.* 32 (1984) 171-177.
- [7] "Systèmes linéaires complets de sections hypersurfaces sur les variétés projectives de codimension 2", *C. R. Acad. Sci. (Paris)* 298, Ser. A, No. 6 (1984), 111-112.
- [8] "Unirationality of the moduli spaces of curves of genus 11, 13 (and 12)", *Invent. Math.* 76 (1984), 47-54, (with M.C. Chang).
- [9] "Curvilinear enumerative geometry", *Acta Math.* 155 (1985), 81-101.
- [10] "Closed families of smooth space curves", *Duke Math. J.* 52 (1985), 707-713, (with M.C. Chang).
- [11] "Surfaces of order 1 in Grassmannians", *Crelle's J.* 368 (1986), 119-126.
- [12] "On a theorem of Martens", *Rend. Sem. Mat. Torino* 44 (1986), 287-291.
- [13] "The Kodaira dimension of the moduli space of curves of genus 15", *J. Differential Geometry* 24 (1986), 205-220, (with M.C. Chang).
- [14] "On nodal plane curves", *Invent. Math.* 86 (1986), 529-534.
- [15] "The degree of a Severi variety", *Bull. Amer. Math. Soc.* 17, No. 1(1987), 125-128.
- [16] "Families of plane curves and their limits: Enriques' conjecture and beyond", *Annals of Math.* 130 (1989), pp. 121-157.
- [17] "Enumerative geometry of singular plane curves", *Inventiones Math.* 97 (1989), pp. 447-465.
- [18] "Local differential geometry and generic projections of threefolds", *J. Differential Geometry* 32 (1990), 131-137.
- [19] "Stability of certain holomorphic maps", *J. Differential Geometry* 34 (1991), pp. 37-47.
- [20] "A remark on hyperelliptic curves", *Arch. Math.* 57 (1991), 622-624.
- [21] "The (dimension +2)-secant lemma", *Invent. Math.* 106 (1991), 65-71.

- [22] "On the slope and Kodaira dimension of M_g for small g ", *J. Differential Geometry* 34 (1991), pp. 267-274, (with M.C. Chang).
- [23] "Deformations of manifolds with torsion or negative canonical bundle", *J. Algebraic Geometry* 1 (1992), 279-291.
- [24] "Lifting of cohomology and unobstructedness of certain holomorphic maps", *Bull. Amer. Math. Soc.* 26 (1992), 113-117.
- [29] "Divisors on some generic hypersurfaces", *J. Diff. Geometry* (1993), pp. 671-678, (with M.C. Chang).
- [30] "Dimension of families of space curves", *Compositio Math.* (1993), pp. 53-57, (with M.C. Chang).
- [31] "Hodge theory and the Hilbert scheme", *J. Differential Geometry* 37 (1993), 191-198.
- [32] "Derivatives of moduli", *Int. Math. Res. Notices* (1993), 93-106.
- [33] "Hodge theory and deformations of maps", *Compositio Math* 97 (1995), 309-328.
- [34] "Unobstructedness of Calabi-Yau orbifolds", *J. Math. Physics* 39 (1998), 625-629.
- [35] "On the period maps of projective hypersurfaces", *Proc. Roy. Soc. Edinburgh* 127A, 859-869, 1997.
- [38] "Bend, break and count II", *Math. Proc. Camb. Phil. Soc.* 127 (1999), pp.7-12.
- [39] "On unisecants to plane curves" *Quarterly J. Math.*, vol 49 (1998), pp. 487-490.
- [40] "Bend, break and count", *Israel J. Math.*, vol 111 (1999), pp. 109-124.
- [41] "Universal variations of Hodge structures and Calabi-Yau Schottky relations", *Inventiones Math*, vol 138 (1999), pp. 425-449.
- [42] "Monodromy and connectedness", *Bull. London Math. Soc.* 32 (2000), 267-271.
- [43] "On the quantum cohomology of the plane, old and new, and a K3 analogue", *Collect. Math.* 49 (1998), pp. 519-526.
- [44] "Semiregularity, obstructions and deformations of Hodge classes", *Ann. Sc. Norm. Sup. (Pisa) Cl. Sci. (4)* 28 (1999), pp.809-821.
- [45] "Canonical Infinitesimal Deformations", *J. Algebraic Geometry* 9 (2000), pp.43-69.
- [46] "Subvarieties of generic hypersurfaces in any variety", *Math. Proc. Camb. Phil. Soc.* 130 (2001), 259-268 (with L. Chiantini, Professor University of Siena and A. Lopez, Professor University of Rome).
- [48] "On the variety of rational space curves", *Isr. J. Math* 122 (2001), pp. 359-370.
- [49] "A new method in Fano geometry" *Internat. Math Research Notices* 2000 no.10, pp.527-549 (by Z. Ran and H. Clemens, Professor University of Utah).
- [50] The degree of the divisor of jumping rational curves' *Quart. J. Math.* 52 (2001), 367-383.

- [51] “On the irreducibility of secant cones, and an application to linear normality” *Duke Math. J.*, vol. 117 (2003), 389-401 (with A. Lopez, Professor University of Rome).
- [52] “Twisted genus bounds for subvarieties of generic hypersurfaces” *Amer. J. Math.* 126 (2004), pp. 89-115 (with H. Clemens, Professor University of Utah).
- [53] “The minus-1 twist” *Amer. J. Math.* 126 (2004), pp.115-118 .
- [54] “A general position lemma” *Amer. J. Math.* 126 (2004), pp.118-120 .
- [55] “Enumerative geometry of divisorial families of rational curves” *Ann. Sc. Norm. Sup.- Pisa* (5) 3 (2004), 67-85.
- [56] “The Atiyah extension of a Lie algebra deformation” *J. Lie Theory* 15 (2005),pp. 407-503.
- [57] “Geometry on nodal curves” *Compositio Math.* 141 (2005), pp.1191-1212.
- [58] “A note on Hilbert schemes of nodal curves” *J. Algebra* 292 (2005), pp. 429-446.
- [59] “Jacobi cohomology, local geometry of moduli spaces, and Hitchin's connection” *Proc. London Math. Society* (3) 92 (2006), pp. 545-580.
- [60] “Normal bundles of rational curves in projective spaces” *Asian J. Math* 11 (2007), 567-608.
- [61] “Lie atoms and their deformations” *Geom. Funct. Analysis* 18 (2008), 184-221.
- [62] “Jacobi-Bernoulli cohomology and deformations of schemes and maps” *C. Europ. J. Math.* 10 (2012), 1541-1591.
- [63] “Echelon modifications of vector bundles” *Comm. Alg.* 41 (2013), 1846-1853.
- [64] “Tautological module and intersection theory on Hilbert schemes of nodal curves” *As. J. Math.* 17 (2013), 193-264.
- [65] “Canonical systems and their limits on stable curves” *J. Algebra* 399 (2014), 634-656.
- [66] “Unobstructedness of filling secants and the Gruson-Peskine general projection theorem” *Duke Math. J.* 164 (2015), 697-722 (DOI 10.1215/00127094-2881483).
- [67] “Deformations of log-Lagrangian submanifolds of Poisson manifolds” *Internat. Math. Research Notices*, rnu 246, 14 pages (doi:10.1093/imrn/rnu246).
- [68] “A note on cotangent sheaves of Hilbert schemes of families of planar curves” *J. Pure Applied Algebra* 219 (2015), 4441-4445.
- [69] “Modifications of Hodge bundles and enumerative geometry: the stable hyperelliptic locus” *Selecta math. New Ser.* (DOI 10.1007/s00029-015-0184-z, accepted 3/15/15, 67 pages).
- [70] “Structure of the cycle map for Hilbert schemes of families of nodal curves” *Israel J. Math* (accepted August 2015, 33 pages).

Refereed Technical Conference Proceedings, Published:

- [CP1] "Deformations and smoothing of complete linear systems on reducible curves", Proc. AMS Summer Institute, Bowdoin College, (1985). Providence: Amer. Math Soc. (1987), pp. 63-75, (with M.C. Chang).
 - [CP2] "A note on the slope of subvarieties of M_g ", in: Mathematical aspects of string theory, S.T. Yau, ed. Singapore: World Scientific (1987), pp.408-411, (with M.C. Chang).
 - [CP3] "The Severi problem: a post mortem (?), Mathematical aspects of string theory", S.T. Yau, ed. Singapore: World Scientific (1987), pp. 394-407.
 - [CP4] "Divisors on M_g and the cosmological constant", Mathematical aspects of string theory, S.T. Yau, ed. Singapore: World Scientific (1987), pp. 386-393, (with M.C. Chang).
 - [CP5] "Deformations of maps", in Proc. Conf. on Algebraic Curves and Projective Geometry, Trento (1988). Lecture Notes in Math. 1389. Berlin: Springer-Verlag (1989), pp. 246-253.
 - [CP6] "Absence of the Veronese from smooth threefolds in P^5 ", Proc. Conf. Algebraic Geometry, Sundance (1988), Contemporary Math. 116 (1991), pp. 125-128.
 - [CP7] "Deformations of Calabi-Yau Kleinfelds", Essays on Mirror Symmetry, S.T. Yau, ed. Hong Kong: International Press (1992), pp. 451-457. Rpt. In AMS/IP Studies in Advanced Math., vol. 9, 1998.
 - [CP8] "Thickening Calabi-Yau moduli spaces", Mirror Symmetry II, B. Greene & S.T. Yau, eds., pp. 382-389, Providence: AMS & Birkhauser 1997 .
 - [CP9] "On the local geometry of moduli spaces of vector bundles", in Moduli of Vector Bundles, M. Maruyama, ed., pp. 213-220, New York, M. Dekker, 1996.
 - [CP10] "Quantum cohomology, old and new", in Quantum cohomology, Mittag-Leffler Institute, P. Aluffi, ed. Pisa, Scuola Normale Superiore, 1997, pp. 104-107.
 - [CP11] "On semipositivity of sheaves of differential operators and the degree of a unipolar Q -Fano variety" in: Clemens Festschrift, ed. Bertram et al., Contemporary Math. Vol. 312 (2002), pp. 177-186.
 - [CP12] "Cycle maps on Hilbert schemes of nodal curves", in 'Projective Varieties with Unexpected Properties, a volume in honor of G. Veronese's 150th birthday ', ed. Chiantini et al., Berlin: De Gruyter 2005 , pp.363-380.
 - [CP13] "Evolution equations in Hilbert-Mumford intersection theory", in Hodge theory and classical algebraic geometry, ed. Kennedy et al, Contemporary Math. 2015.
- Other
- [O1] "Projective curves and hypersurfaces, I-IV" National Center for Theoretical Sciences, Hsinchu, Taiwan (a 4-DVD set).