CURRICULUM VITAE

Name (Family, First) :   TAMANOI, Hirotaka. ————————————————————

Current Affiliation : Dept. of Mathematics, University of California,
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Current Rank :   Full Professor, UCSC

EMPLOYMENT HISTORY & DEGREES

University of California Santa Cruz, California, USA	Full Professor (Teaching and Research)	2010– present
University of California Santa Cruz, California, USA	Associate Professor (Teaching and Research)	2002–2010
University of California Santa Cruz, California, USA	Assistant Professor (Teaching and Research)	1996–2002
University of California Santa Cruz, California, USA	Visiting Assistant Professor (Teaching and Research)	1995–1996
Institut des Hautes Études Scientifiques Paris, FRANCE	Visiting Member (Research)	1994–1995
University of Kentucky Lexington, Kentucky, USA	Visiting Assistant Professor (Teaching and Research)	1992–1994
Max-Planck-Institut für Mathematik Bonn, GERMANY	Guest Professor (Research)	1991–1992
Rutgers University New Brunswick, New Jersey, USA	Hill Assistant Professor (Teaching and Research)	1988–1991
Institute for Advanced Study Princeton, New Jersey, USA	Member [leave from Rutgers] (Research)	1988–1989
The Johns Hopkins University Baltimore, Maryland, USA	Ph.D. Thesis in Math. (Algebraic Topology)	May 1988
Institute for Advanced Study Princeton, New Jersey, USA	Visiting Member (Research)	1987-1988
The Johns Hopkins University Baltimore, Maryland, USA	Teaching Assistant (Sloan Dissertation Fellow)	1983-1987
The University of Tokyo Tokyo, JAPAN	M.A./M.S. Thesis in Math. (Algebraic Topology)	March 1983
The University of Tokyo Tokyo, JAPAN	B.A/B.S. Major in Math.	March 1981

PUBLICATIONS

Research Monograph

H. Tamanoi: Elliptic Genera and Vertex Operator Super Algebras.
390pp. (Springer Lecture Notes in Mathematics, Volume 1705, 1999.)

Chapter I : Elliptic Genera.
Chapter II : Vertex operator super algebras.
Chapter III : G-invariant vertex operator super algebras.
Chapter IV : Geometric structures in vector spaces and reductions of structure groups on manifolds.
Chapter V : Infinite dimensional symmetries in elliptic genera for Kähler manifolds.

Published Refereed Journal Articles

(1) J. Morava and H. Tamanoi: *A vanishing theorem for the conformal anomaly.* Proceedings of the AMS., vol.100, 767-774, (1987).

(2) H. Tamanoi: *Elliptic genera and vertex operator super algebras.* Proc. Japan Acad., **71**, Ser.A 177–181 (1995).

(3) H. Tamanoi: *Higher Schwarzian operators and combinatorics of Schwarzian derivative.* Math. Ann. 305(1996), pp. 127–151.

(4) H. Tamanoi: *The image of BP-Thom maps for Eilenberg-MacLane spaces.* Transactions of AMS, vol 349 (1997) 1209–1237.

(5) H. Tamanoi: *Multiplicative indecomposable splittings of $MSp_{[2]}$.* Mathematische Zeitschrift, 225(1997), pp. 577–610

(6) H. Tamanoi: *Q-subalgebras, Milnor basis, and cohomology of Eilenberg–Mac Lane spaces.* Journal of Pure and Applied Algebra, 132(1999), pp. 153–198

(7) H. Tamanoi: *Invariant symmetric pairings in vertex operator super algebras and Gramians.* J. Pure and Applied Algebra 140(1999), pp. 149–189.

(8) H. Tamanoi: *Spectra of BP-linear relations, v_n-series, and BP-cohomology of Eilenberg–Mac Lane spaces.* TransȦmerMathṠoc; 352(2000), no.11, 5139–5178.

(9) H. Tamanoi : *Generalized orbifold Euler characteristics of symmetric products and equivariant Morava K-theory.* Algebraic and Geometric Topology, Vol.1(2001), 115–141.

(10) R. Molzon and H. Tamanoi: *Generalized Schwarzians in several variables and Möbius invariant differential operators.* Forum Mathematicum, vol.14, no.2(2002), 165–188.

(11) A. Baker and H. Tamanoi: *Invariants for finite dimensional groups in vertex operator algebras associated to basic representations.* CRM Proceedings and Lecture Notes, Vol.30(2001), 1–13.

(12) H. Tamanoi: *Genera defined by hyperelliptic integrals and Siegel modular functions.* J. Pure and Applied Algebra, Vol 172(2002), no.2-3, 305–323.

(13) H. Tamanoi: *Generalized orbifold Euler characteristics of symmetric orbifolds and covering spaces.* Algebraic and Geometric Topology, Volume 3 (2003) 791–856.

(14) H. Tamanoi: *Batalin-Vilkovisky Lie algebra structure on the loop homology of complex Stiefel manifolds.* International Mathematics Research Notices, Volume 2006, Article ID 97193, pages 1-23.

(15) H. Tamanoi: *Infinite product decomposition of orbifold mapping spaces.* Algebraic & Geometric Topology 9 (2009) 569–592.

(16) H. Tamanoi: *Cap products in string topology.* Algebraic & Geometric Topology 9 (2009) 1201–1224.

(17) H. Tamanoi : *Stable string operations are trivial.* International Mathematics Research Notices (2009), Vol 2009 4642–4685. Advance Access published July 13, 2009.

(18) H. Tamanoi : *Loop coproducts in string topology and triviality of higher genus TQFT operations.* Journal of Pure and Applied Alebra, Volume 214, Issue 5, May 2010, 605–615.

(19) H. Tamanoi : *A homotopy theoretic proof of BV identity in loop homology*, 13 pages.

(20) H. Tamanoi : *Topological quantum field theory string operations in open-closed string topology*, 21 pages.

(21) H. Tamanoi : *Open-Closed topological quantum field theory string operations for disc cobordisms, simultaneous saddle interactions, and constant homology classes*, 34 pages.

PROFESSIONAL ACTIVITIES
(The following three categories have no overlaps.)

Invited One Hour Talks

Workshop at Fields Institute, Toronto	September	2004
Title: *Twisted free loop spaces and application*		
Workshop at Banff Internat. Research Station	June	2003
Title: *Multiplicatice decomposition of orbifold mapping spaces*		
JAMI, (Japan US Math Institute) International Conference (Recent Progress in Homotopy Theory), Johns Hopkins Univ.	March	2000
Pacific Northwest Geometry Seminar, MSRI	February	2000
West Coast Topology Conference, Stanford Univ.	March	1996
University of Glasgow, Glasgow, United Kingdom	August	1995
Workshop on Elliptic Cohomology, MPI at Bonn, Germany	June	1995
The Joint Summer Research Conference at Mount Holyoke (Conference Topic : Moonshine, Monster, and related topics)	June	1994
JAMI (Japan US Math Institute) International Conference and Workshop at JHU, Baltimore, Maryland (invited from MPI, Bonn, Germany)	Spring	1992

MPI Topology Seminar, Bonn, Germany	Fall	1991
Queen's University, Kingston, Canada	Summer	1989
MIT Topology Seminar, Boston	Fall	1988
The Summer Research Conference at Bowdoin	Summer	1988
(Conference Topic : Elliptic Genera)		
Institute for Advanced Study, Princeton	Spring	1988
Colloquium talk at U of Pennsylvania, Philadelphia	Spring	1988
Princeton Univ Homotopy Seminar, Princeton	Fall	1987

Contributed Talks

Lehigh Geometry and Topology Conference, Bethlehem, PA	June	2000
International Congress of Mathematicians, Berlin, Germany	August	1998
American Math Soc (AMS) Meeting at Baltimore	January	1998
(Special Session: Homotopy Theory)		
Canadian Math Soc. (CMS) Winter Meeting (Victoria, BC)	December	1997
(Special Session: Homotopy Theory)		
AMS Meeting at Wayne State (Detroit)	May	1997
(Special Sessions: VOAs, Moonshine and Related Topics)		
AMS Meeting at Oklahoma (Paper presented with R Molzon)	October	1994
Topology Geometry Conference at Lehigh University	Spring	1991

Conferences and Professional Visits (from the year 1994)

Algebraic Topology, Applications and New Directions, Stanford Symposium,	July	2012
Workshop on the Topology of Moduli Spaces, Stanford	August	2001
Algebraic Topological Mathods in Computer Science, Stanford	July	2001
Mathematical Aspects of Orbifold String Theory, Madison	May	2001
Algebraic Combinatorics, Monster, and VOA, UCSC	July	2000
MIT, Boston, MA	June	2000
Lie Group, Lie Algebras and Representations, UCSC, California	April	2000
Topology Conference, UC Berkeley, California	April	2000
Topology, Geometry, and Algebra, Stanford, California	August	1999
Summer Research Conference, Boulder, Colorado (cancelled)	June	1999
(Homotopy methods in algebraic topology)		
University of Kentucky, Lexington, Kentucky	June	1999
Moonshine Workshop, Montreal, Canada	June	1999
Lie Groups, Lie Algebras Workshop, UC Santa Cruz,		1998
Aarhus Topology and Geometry Conference, Aarhus, Denmark	August	1998
Lie Groups, Lie Algebras Workshop, UC Santa Cruz,	December	1997
Algebraic Topology Conference, Northwestern Univ.	March	1997
AMS Summer Research Institute, Univ Washington	July	1996
Cohomology, Representations, and Actions of finite Groups		
Lie groups, Lie algebras, UC Santa Cruz	April	1996
West Coast Topology Conference, Stanford Univ.	March	1996
University of Glasgow, Glasgow, United Kingdom	August	1995
Summer school on "Elliptic Cohomolgy" at CRM,	July	1995

Barcelona, Spain

Workshop on "Elliptic Cohomology" at MPI (invited)	June	1995
Bonn, Germany		
Bonn Arbeitstagung, Bonn, Germany	June	1995
Joint Summer Research Conferences at Mt.Holyoke :		
(i) Periodic phenomena in homotopy theory	July	1994
(ii) Moonshine, Monster, and related topics	June	1994
Topology and Geometry Conference at Lehigh, Bethelehem	June	1994
Browder Conference at Princeton University, Princeton	March	1994
AMS Meeting at Lexington, Kentucky	March	1994

DEPARTMENTAL SERVICES (UCSC)

Mathematics Qualifying Exam Committee (Vinod Sastry)	June 2015
Graduate Students Admission Committee	Winter 2014
Geometry Topology Preliminary Exam Administration	2013–2014
Mathematics Qualifying Exam Committee (Felicia Tabbing)	June 2013
Mathematics Qualifying Exam Committee (Robert Labor)	November 2011
Physics Qualifying Exam Committee (Angelo Monteur)	August 2011
Economics Qualifying Exam Committee (Kenta Inoue)	November 2010
Mathematics Qualifying Exam Committee (Michael Miller)	June 2009
Recriutment Committee for Tenure-track Assistant Professor	2008– 2009
Regent's Scholarship Selection Committee (UCSC Frosh)	Winter 2008
Recruiting Committee for Youngs Visiting Assistant Professors	Winter 2003
Undergraduate Vice Chair	Fall 2002
Recruiting Committee for Youngs Visiting Assistant Professors	Winter 2002
J.T.Young's Prize selection	Spring 2001
Curriculum Committee	Fall 2000
Teaching Supervision & Undergraduate Program Vice Chair	Spring 2000
Master's Thesis Committee	Spring 2000
J.T.Young's Prize selection	Spring 2000
Recruiting Committee for Visiting Assistant Professors	Winter 1999
Graduate Students Committee	1998–1999
Recruiting Committee for Visiting Assistant Professors	Winter 1998
Colloquia Chair	1997–1998
Stevenson College Fellow	1996–Present

DIVISIONAL SERVICES (UCSC)

Divisional Committee on Academic Personnel	20010–2011
Divisional Committee on Academic Personnel	2009–20010
Divisional Committee on Academic Personnel	2008–2009

UNIVERSITY SERVICES (UCSC)

Senate Committee on Courses of Instruction	2018–2019
Senate Committee on Courses of Instruction	2017–2018

Senate Committee on Faculty Welfare	2010–2011
Senate Committee on Faculty Welfare	2009–2010

PROFESSIONAL SERVICE: Journal Referee

Algebraic and Geometric Topology
International Mathematics Research Notices
Journal of Pure and Applied Mathematics
Publications Mathemátiques
Quarterly Journal of Mathematics
Topology and Applications

Ph.D. and MA STUDENTS

Felicia Tabing	June 2015	Ph.D. Thesis Title: String homology and Lie algebra structures
		Academic Position: Rose-Hulman Institute of Technomolgy
Katsuhito Sugano	August 2017	MA Thesis Title: Sangaku: Sacred Mathematics In Japan
Jonathan Chi		Current PhD student
Paul Coombs		Current PhD student