CURRICULUM VITA

September 11, 2025

Name: TERAO, Hiroaki (Mr.)   Sex: Male

Present Address: Hiroaki Terao
                 1-19-8 Minamisenzoku
                 Ota-ku, Tokyo 145-0063 JAPAN
                 Tel. 090-8518-7831
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Date of birth: August 13, 1951   Birth Place: Tokyo, Japan

Education:

1. University of Tokyo, B. Sc., March 1974

2. University of Tokyo, M. Sc., March 1976

3. Kyoto University, D. Sc.(論文博士), Mar. 1981

Current Positions:

1. Hokkaido University, Professor Emeritus (名誉教授), April 1, 2015 -

Full-Time University Positions:

1. International Christian University, Assistant, Apr. 1977-Mar. 1979

2. International Christian University, Instructor, Apr. 1979-Mar. 1981

3. International Christian University, Assistant Professor, Apr. 1981-Mar. 1985

4. University of Wisconsin (Madison), Visiting Assistant Professor, Sep. 1982-Jun. 1983

5. International Christian University, Associate Professor, Apr. 1985- Sep. 1991

6. Ohio State University, Visiting Associate Professor, Sep. 1987-June 1988

7. University of Wisconsin (Madison), Visiting Associate Professor, Sep. 1988-Aug. 1990

8. University of Wisconsin (Madison), Associate Professor, Aug. 1990- May 1993

9. University of Wisconsin (Madison), Professor, Aug. 1993-May 1999

10. Hokkaido University, Professor, July 1, 1996 - March 31, 1998

11. Tokyo Metropolitan University, Professor, April 1, 1998 - March 31, 2006

12. Hokkaido University, Professor, Faculty of Science, April 1, 2006 - March 31, 2015

13. Hokkaido University, Dean, Graduate School of Science (理学院長), April 1, 2011 - March 31, 2015

14. Hokkaido University, Dean, Faculty of Science (理学研究院長), April 1, 2013 - March 31, 2015

15. Hokkaido University, Dean, School of Science (理学部長), April 1, 2013 - March 31, 2015

16. Hokkaido University, Vice President (副学長), April 1, 2015 - March, 2017

17. Hokkaido University, Director, International Student Center Office of International Affairs (国際本部留学生センター長), April 1, 2015 - Feb 29, 2016

18. Hokkaido University, Professor, Office of International Affairs (国際本部特任教授), April 1, 2015 - September 31, 2016

19. Hokkaido University, Deputy Executive Director, Office of International Affairs (国際本部副本部長), October 1, 2015 - Sep 30, 2016

20. Hokkaido University, Director, Center for the Advancement of Global Education, Office of International Affairs (国際本部グローバル教育推進センター長), March 1, 2016 - September 30, 2016

21. Hokkaido University, Deputy Executive Director, Institute for International Collaboration (国際連携機構副機構長), October 1, 2016 - March, 2017

22. Hokkaido University, Director, Center for International Education and Research, Institute for International Collaboration (国際連携機構国際教育研究センター長), October 1, 2016 - March, 2017

23. Hokkaido University, Director, Overseas Office Coordination Unit, Institute for International Collaboration (国際連携機構海外オフィス連携室長), October 1, 2016 - March, 2017

24. Hokkaido University, Professor, Institute for International Collaboration (国際連携機構特任教授), October 1, 2016 - March, 2017

Part-time University Positions:

1. Aoyama Gakuin University, Part-time Lecturer, Sep. 1976-Feb. 1977

2. Tokyo Metropolitan University (Graduate School), Part-time Lecturer, Nov. 1979-Mar. 1980,

3. Hokkaido University, Visiting Lecturer, Jan. 1981

4. Tokyo Metropolitan University (Graduate School), Part-time Lecturer, Nov. June 1992 (Shuuchuu Koogi).

5. Université de Nantes, France, Professeur invité, May 20 - June 19, 1995.

6. Tohoku University, Part-time Lecturer (Shuuchuu Koogi), May 1997

7. Kyushu University, Part-time Lecturer (Shuuchuu Koogi), June 1997

8. Saitama University, Part-time Lecturer (Shuuchuu Koogi), Nov. 1997

9. Okayama University, Part-time Lecturer (Shuuchuu Koogi), June 2001

10. Sophia University, Part-time Lecturer (Shuuchuu Koogi), December 2001

11. MSRI graduate workshop, organizer and instructor, Univ. Oregon, August 2004

12. University of Tokyo, Part-time Lecturer (Shuuchuu Koogi), May 2005

13. Ryukyu University, Part-time Lecturer (Shuuchuu Koogi), October 2011

14. Tokyo Metropolitan University, Part-time Lecturer (Shuuchuu Koogi), November 2017

15. Tokyo Institute of Technology, Faculty of Sciences, Part-Time Lecturer (非常勤講師), April 1, 2018 - March 31, 2022

16. Tokyo Metropolitan Uviversity (首都大学東京), Gust Professor (客員教授), June 1, 2017 - March 31, 2020

17. Tokyo Metropolitan University (東京都立大学), Guest Professor (客員教授), April 1, 2020 - March 31, 2022

18. Tokyo Institute of Technology, Faculty of Sciences, Research Fellow (特別研究員), April 1, 2017 - March 31, 2022

19. Science Council of Japan (日本学術会議), Member (連携会員), October 1, 2014 - October 31, 2020

Research Positions:

1. Research Institute for Mathemayical Sciences at Kyoto University
   Research Fellow
   Oct. 1974, Oct. 1975, Jul. 1979-Sep. 1979, Nov. 1980-Jan. 1981

2. Mittag-Leffler Institute, Sweden, Visiting member, May 1992.

3. Institute for Mathematical Sciences, University of Tokyo, Japan, Visiting researcher, Dec 25, 1994 – Jan 24, 1995.

4. Max-Planck-Insitut für Mathematik, Visiting member, June 1 – July 31, 1995.

5. Mathematical Science Research Institute (MSRI), Berkeley, General member, Feb. 8 – March 31, 1997.

6. University of Wisconsin (Madison), Honorary Fellow, Oct. 2002 - Dec. 2002

7. Mathematical Science Research Institute (MSRI), Berkeley, Research professor, Aug. 16 – Dec. 17, 2004.

8. Pacific Institute for Mathematical Sciences (PIMS), Banff, visiting member (focussed research group), June 10 – 15, 2006.

Award:

1. Algebra Prize (Daisuugaku Shou), MSJ Algebra research Section (Daisuugaku Bunkakai), 2010.

Other Experiences:

1. Ph. D. committe member (reader) of Mr. Mike Falk (Univ. Wisconsin, Madison, WI, May, 1983)

2. Doctorat d'état committe member of Mr. Michel Jambu (Univ. Nantes, France, April, 1989)

3. Organizer of Workshop of Arrangements held at University of Wisconsin on Oct. 10, 1991. (12 participants from outside)

4. Organizer of Workshop of Arrangements held at University of Wisconsin on Oct. 10, 1992. (22 participants from outside)

5. Ph. D. committe member (reader) of Mr. Ken Jewell (Univ. Wisconsin, Madison, WI, May, 1993)

6. Ph. D. committe member (reader) of Mr. Kequan Ding (Univ. Wisconsin, Madison, WI, July, 1993)

7. Habilitation committe member (President) of Mr. Luis Paris (Univ. Bourgogne, Dijon, France, June, 1994)

8. Ph. D. committe member (reader) of Mr. Daniel Juan-Pineda (Univ. Wisconsin, Madison, WI, August, 1994)

9. Doctorat committe member of Mr. Patrick Lehebel (Univ. Nantes, France, May, 1995)

10. Hokkaido Math. Journal, editor, 1996-1998

11. Annals of Combinatorics, associate editor, 1997-

12. Organizer of Workshop on Mathematics Related to Arrangements of Hyperplanes held at Tokyo Metropolitan University, Jul. 13 - 18, 1998. (a regional workshop of Japan Mathematcan Society) (24 participants from overseas)

13. JSPS Kagaku Kenkyuuhi Iinkai Senmon Iin, 2000-2001.

14. Tokyo J. of Math., editor, 2001-2003

15. JSPS Tokubetsu Kenkyuuin Tou Shinsakai Senmon Iin, 2001-2003

16. National Institution for Academic Degrees and University Evaluation, Senmon Iinkai, Hyoukain, 2003-2006

17. Ph. D. committe member of Mr. Masahiko Yoshinaga (RIMS, Kyoto Univ., Feb., 2004)

18. JSPS Kagaku Kenkyuuhi Iinkai Senmon Iin, 2004

19. Organizer of Introductory Workshop in Hyperplane Arrangements and Applications at MSRI, Berkeley, CA, USA, August 23, 2004 to August 27, 2004

20. Organizer of Topology of Arrangements and Applications at MSRI, Berkeley, CA, USA, Oct 4-8, 2004

21. Organizer of Periods -Around the Theory of Primitive Forms-, In Honor of Professor Kyoji Saito on his Sixtieth Birthday, at Research Institute for Mathematical Sciences (RIMS) Kyoto University, January 22 - 26, 2005

22. Organizer of Workshop of Recent Developments of Arrangements and Configuration Spaces at MSRI, Berkeley, CA, USA, Aug 7-11, 2006

23. Organizing Committee Chair of The Second MSJ Seasonal Institute, Arrangements of Hyperplanes, August 1 - 13, 2009 (62 participants from overseas, 179 in total)

24. JSPS Research Center for Science Systems (Nihon Gakujutsu Shinkokai Gakujutsu System Kenkyu Center), Program Officer (Senmon Kenkyuuin), April 1, 2010 - Mar. 31, 2011

25. JSPS Research Center for Science Systems (Nihon Gakujutsu Shinkokai Gakujutsu System Kenkyu Center), Senior Program Officer (Shunin Kenkyuuin), April 1, 2011 - March 31, 2013

26. MSJ Science Committee Member (Gakujutsu Iinkai Un-ei Iin) October, 2009 - June, 2015 (Chair, July, 2011 - June, 2013)

27. JSPS Kokuai Jigyo Iinkai Shinsa Hyouka Bukai Senmon Iin, July 19, 2013 - March 31, 2014

28. Ph. D. committe member of Ms. Jackie Kaminski (State University of New York at Binghamton, July, 2013)

29. RIMS (Research Institute for Mathematical Sciences), Kyoto Univ., Advisory Board (運営委員会), Member, Sep. 1, 2013 - Aug. 31, 2015, Sep. 1, 2019 - Aug. 31, 2021

30. RIMS (Research Institute for Mathematical Sciences), Kyoto Univ., Technical Committee (専門委員会), Member, Sep. 1, 2013 - Aug. 31, 2015, Sep. 1, 2019 - Aug. 31, 2021

31. Organizing Committee Chair of The Summer Conference on Hyperplane Arrangements(SCHA) in Sapporo, August 8 - 12, 2016 (37 participants from overseas, 100 in total)

32. National Institution for Academic Degrees and Quality Enhancement of Higher Education (大学改革支援・学位授与機構), Senmon Iin, April 1, 2020 - March 31, 2021

PhD student:

1. Keith Brandt, 1992

2. Lee Ki-Suk, 1995

3. Atsushi Wakamiko, 2010

4. Daisuke Suyama, 2014

Scholarships and Grants:

1. Japan Ikueikai Scholarship Apr. 1974-Mar. 1977

2. Scientific Research Grant Ministry of Education (Shorei-Kenkyu A) 1980

3. JMS Research Fellow
   (Harvard Committee on the Education Project for Japanese
   Mathematical Scientists) 1982-83

4. NSF Grant (Summer) 1983

5. Scientific Research Grant, Ministry of Education (Shorei-Kenkyu A) 1986

6. NSF Grant 144 BP55 (3 yrs. from July, 1990, extended until August 31,
   1994) (co-principal investigater) with Peter Orlik

7. UW Graduate School # 911655 (2 yrs. from July, 1990, extended until
   June 30, 1994)

8. NSF Grant 144-EY53 (3 yrs. from July, 1995) (co-principal investigater)
   with Peter Orlik

9. Scientific Research Grant, Ministry of Education (Kiban B) 1997 (2 yrs.
   from April, 1997)

10. Scientific Research Grant, Ministry of Education (Kiban B) 1999 (3 yrs.
    from April, 1999)

11. Scientific Research Grant, Ministry of Education (Houga) 2001 (3 yrs.
    from April, 2001)

12. Scientific Research Grant, Ministry of Education (Kiban B) 2002 (3 yrs.
    from April, 2002)

13. Research Grant (selected by Dean), Tokyo Metropolitan University, 2002

14. Research Grant (selected by Chancellor), Tokyo Metropolitan University,
    2003

15. Scientific Research Grant, Ministry of Education (Kiban B) 2005 (4 yrs.
    from April, 2005)

16. Scientific Research Grant, Ministry of Education (Houga) 2006 (3 yrs.
    from April, 2006)

17. Scientific Research Grant, Ministry of Education (Kiban B) 2009 (3 yrs.
    from April, 2009)

18. Scientific Research Grant, Ministry of Education (Chousenteki Houga)
    2011 (3 yrs. from April, 2011)

19. Scientific Research Grant, Ministry of Education (Kiban A) 2012 (5 yrs.
    from April, 2012)

20. Scientific Research Grant, Ministry of Education (Chousenteki Houga)
    2014 (2 yrs. from April, 2014)

Professional Publications

A. Books

1. Arrangements of Hyperplanes. (xviii + pp.325) Grundlehren der Mathematischen Wissenschaften **300**, Springer-Verlag, Berlin-Heidelberg-New York, 1992. (P. Orlik, H. Terao)

2. Arrangements-Tokyo 1998. Advanced Studies in Pure Math. **27**, Kinokuniya, Tokyo, 2000. (eds. M. Falk and H. Terao)

3. Arrangements of Hyperplanes - Sapporo, 2009. (pp.57) the Second MSJ-SI, Hokkaido University, Sapporo, 2009, Advanced Studies in Pure Math., Math. Soc. of Japan, Tokyo, 2012 (eds. H. Terao, S. Yuzvinsky)

B. Papers (refereed)

1. Forms with logarithmic pole and the filtration by the order of the pole. Proc. Intern. Sympo. on Algebraic Geometry, Kyoto, 1977, Kinokuniya, Tokyo, 1978, 673-685. [82b:14004]

2. The rational forms on the weighted projective space and the filtration by the order of pole. Sci. Papers of the Coll. of Gen. Ed., Univ. of Tokyo 28, no.2, 153-158 (1978).[MR 80i:14006]

3. Arrangements of hyperplanes and their freeness I. J. Fac. Sci. Univ. Tokyo Sect. IA Math. 27, 293-312 (1980). [MR 84i:32016a]

4. Arrangements of hyperplanes and their freeness II -the Coxetor equality-. J. Fac. Sci. Univ. Tokyo Sect. IA Math. 27, 313-320(1980). [MR 84i:32016b]

5. Free arrangements and unitary reflection groups. Proc. Japan Acad. 56(8)A, 389-392 (1980). [MR 82e:32018a]

6. Generalized exponents of a free arrangement of hyperplanes and Shephard-Todd-Brieskorn formula. Inventiones math. 63, no.1, 159-179 (1981). [MR 82e:32018b]

7. On Betti numbers of complement of hyperplanes. Publ. RIMS 17, no.2, 657-663 (1981). [MR 83h:32012]

8. The exponents of a free hypersurface. Proc. Symp. Pure Math. 40, *Singularities*, part 2, 561-566 (1983). [MR 85a:32012]

9. The bifurcation set and logarithmic vector fields. Math. Ann. 263, no.3, 313-321 (1983). [MR 85a:32030]

10. Les treilles hypersolvables et les arrangements des hyperplans libres. C. R. Acad. Sci. Paris 296, Ser.I, 623-624 (1983). [MR 85a:32020] (M. Jambu, H.Terao)

11. Free arrangements of hyperplanes over an arbitrary field. Proc. Japan Acad. 59A, 301-303 (1983). [MR 85f:32017]

12. Discriminant of a holomorphic map and logarithmic vector fields. J. Fac. Sci. Univ. of Tokyo Sect. IA Math. 30, 379-391 (1983). [MR 85d:32027]

13. Free arrangements of hyperplanes and supersolvable lattices. Advances in Math. 52, no.3, 248-258 (1984) (M. Jambu, H. Terao) [MR 86c:32004]

14. The duality of the exponents of free deformations associated with unitary reflection groups. Advanced Studies in Pure Math. 6, *Algebraic Groups and Related Topics*, Kinokuniya and North-Holland, Tokyo-Amsterdam, 1984, 347-359. [MR 87a:32023] (H. Terao, T. Yano)

15. Arrangements of hyperplanes and differntial forms. Contemporary Math., 34, Amer. Math. Soc., Providence, R.I., 1984, 29-65 (P. Orlik, L. Solomon, H. Terao) [MR 86m:32018]

16. On the Coxeter arrangement and the Coxeter number. Advanced Studies in Pure Math. 8, *Complex Analytic Singularities*, Kinokuniya and North- Holland, Tokyo-Amsterdam, 1986, 461-477. [MR 88g:32020] (P. Orlik, L. Solomon, H. Terao)

17. Modular elements of lattices and topological fibration. Advances in Math. 62, no.2, 133-154 (1986).

18. A formula for the characteristic polynomial of an arrangement. Advances in Math. 64, no.3, 305-325 (1987).(L. Solomon, H. Terao) [MR 88m:32022]

19. Arrangements of hyperplanes and broken-circuits. Contemporary Math. 90, Amer. Math. Soc., Providence, R.I., 1989, 147-162. (M. Jambu, H. Terao)

20. Basic derivations for G 34 : Appendix to "Basic derivations for unitary reflection groups" by P. Orlik. Contemporary Math. 90, Amer. Math. Soc., Providence, R.I., 1989, 225-227. (H.Terao, Y.Enta)

21. The Jacobians and the discriminants of finite reflection groups. Tohoku Math. J. **41**, no. 2, 237-247 (1989)

22. On a Certain Invariant of a Finite Unitary Reflection Group. Proc. Japan Acad., **65**, Ser. A, 320-322, (1989)

23. Hilbert polynomials and geometric lattices. Advances in Math. 84, no.2, 209-225 (1990) (L. Rose, H.Terao)

24. A free resolution of the module of logarithmic forms of a generic arrangement. J. of Algebra, **136**, no.2, 376-400 (1991) (L. Rose, H.Terao) [MR 93h:32048]

25. Factorizations of the Orlik-Solomon Algebras. Advances in Math. **91**, no.1, 45-53 (1992)

26. Coxeter arrangements are hereditarily free. Tohoku Math. J., **45**, no. 3, 369-383 (1993) (P. Orlik, H. Terao)

27. Free arrangements and relation spaces. Discrete Comput. Geom. **12**, 49-63 (1994) (K. Brandt, H. Terao)

28. Commutative algebras for arrangements. Nagoya J. of Math., **134**, 65-73 (1994) (P. Orlik, H. Terao)

29. Arrangements and Milnor fibers. Math. Ann., **301**, 211-235 (1995) (P. Orlik, H. Terao)

30. Logarithmic forms on affine arrangements. Nagoya J. of Math., **139**, 129-149, (1995) (H. Terao, S. Yuzvinsky)

31. The number of critical points of a product of powers of linear functions. Inventiones Math., **120**, 1-14 (1995) (P. Orlik, H. Terao)

32. Local systems over complements of hyperplanes and the Kac-Kazhdan conditions for singular vectors. J. Pure and Applied Alg., **100**, *Physics and Algebra*, 93-102 (1995) (V. Schechtman, H. Terao, A. Varchenko)

33. The logarithmic forms of k–generic arrangements. J. Math. Sci. Univ. of Tokyo, **3**, 83-89 (1996) (K.-S. Lee, H. Terao)

34. β**nbc**–bases for cohomology of local systems on hyperplane complements. Transactions AMS, **349**, 189-202 (1997) (M. Falk, H. Terao)

35. The determinant of a hypergeometric period matrix. Inventiones Math., **128**, 417-436 (1997) (A. Douai, H. Terao)

36. Twisted de Rham cohomology groups of logarithmic forms. Advances in Math., **128**, 119-152 (1997) (K. Aomoto, M. Kita, P. Orlik, H. Terao)

37. The double Coxeter arrangements. Comment. Math. Helv., **73**, 237-258 (1998) (L. Solomon, H. Terao)

38. Logarithmic forms and anti-invariant forms of reflection groups. In Advanced Studies in Pure Math. **27**, 273-278, *Arrangements-Tokyo 1998 (eds. M. Falk and H. Terao)*, Kinokuniya, Tokyo, 2000. (A. Shepler, H. Terao)

39. Arrangements and hypergeometric integrals. JMS Memoir, **9**, (vi+112pp.), 2001/2007(second edition), Japan Mathematical Society (P. Orlik, H. Terao)

40. Moduli space of combinatorially equivalent arrangements of hyperplanes and logarithmic Gauss-Manin connections. Topology and its appl., **118**, 255–274 (2002)

41. Multiderivations of Coxeter arrangements. Inventiones Math., **148**, 659–674 (2002)

42. Algebras generated by reciprocals of linear forms. J. of Algebra, **250**, 549–558 (2002)

43. The Poincaré series of the algebra of rational functions which are regular outside hyperplanes. J. of Algebra, **266**, 169–179 (2003) (H. Horiuchi, H. Terao)

44. Bases of the contact-order filtration of derivations of Coxeter arrangements. Proc. AMS, **133**, 2029–2034 (2005)

45. The Hodge filtration and the contact-order filtration of derivations of Coxeter arrangements. Manuscripta Math., **118**, 1–9 (2005)

46. Arrangements and Ranking Patterns. Annals of Combinatorics, **10**, 219–235 (2006) (H. Kamiya, P. Orlik, A. Takemura, H. Terao)

47. Chambers of arrangements of hyperplanes and Arrow's impossibility theorem. Advances in Math., **214**, 366–378 (2007)

48. The characteristic polynomial of a multiarrangement. Advances in Math., **215**, 825–838 (2007) (T. Abe, H. Terao, M. Wakefield)

49. The Euler multiplicity and addition-deletion theorems for multiarrangements. J. London Math. Soc., (2) **77**, 335-348 (2008) (T. Abe, H. Terao, M. Wakefield)

50. A correction to "Bases of the contact-order filtration of derivations of Coxeter arrangements." Proc. Amer. Math. Soc. **136**, 2639-2639 (2008)

51. Periodicity of hyperplane arrangements with integral coefficients modulo positive integers. J. Alg. Combin. **27**, 317-330 (2008) (H. Kamiya, A. Takemura, H. Terao)

52. Totally free arrangements. Proc. Amer. Math. Soc. **137**, 1405-1410 (2009) (T. Abe, H. Terao, M. Yoshinaga)

53. The characteristic quasi-polynomials of the arrangements of root systems and mid-hyperplane arrangements. Progress in Math. **283**, *Arrangements, local systems and singularities*, Lecture Notes of a 2007 CIMPA Summer School held at Galatasaray University (Istanbul), Jun. 11-22, 2007 (ed. F. Elzein, A. Suciu, M. Tosun, A. M. Uludag, S. Yuzvinsky), Birkhäuser, 177–190, 2010, ISBN:978-3-0346-0208-2 (H. Kamiya, A. Takemura, H. Terao)

54. A primitive derivation and logarithmic differential forms of Coxeter arrangements. Math. Z. **264**, 813-828 (2010) (A. Abe, H. Terao)

55. Primitive filtrations of the modules of invariant logarithmic forms of Coxeter arrangements. Journal of Algebra, **330**, 251-262 (2011) (T. Abe, H. Terao)

56. Ranking patterns of unfolding models of codimension one. Advances in Applied Mathematics, **47**, 379-400 (2011) (H. Kamiya, A. Takemura, H. Terao)

57. The freeness of Shi-Catalan arrangements. European J. Combin. **32**, 1191-1198 (2011) (T. Abe, H. Terao)

58. Periodicity of non-central integral arrangements modulo positive integers. Annals of Combinatorics, **15**, 449-464 (2011) (H. Kamiya, A. Takemura, H. Terao)

59. The Shi arrangement of the type D_ℓ. Proc. Japan Acad. Ser. A, **88**, 41-45 (2012) (R. Gao, D. Pei, H. Terao)

60. Equivariant multiplicities of Coxeter arrangements and invariant bases. Advances in Math. **230**, 2364-2377 (2012) (T. Abe, H. Terao, A. Wakamiko)

61. The Shi arrangements and the Bernoulli polynomials. Bull. London Math. Soc. **44**, 563-570 (2012) (D. Suyama, H. Terao)

62. Arrangements stable under the Coxeter groups. in: "Configuration Spaces: Geometry, Combinatorics and Topology," Proceedings of a special period at the De Giorgi Center, Scuola Normale in Pisa, May - June, 2010, (ed. A. Bjorner, F. Cohen, C. De Concini, C. Procesi, M. Salvetti), Edizioni Della Normale, Pisa, 327-354, 2012, ISBN:978-88-7642-430-4 (H. Kamiya, A. Takemura, H. Terao)

63. The freeness of ideal subarrangements of Weyl arrangements. in: DMTCS Proceedings of "26th International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2014)" **AT**, 501–512 (2014) (T. Abe, M. Barakat, M. Cuntz, T. Hoge, H. Terao)

64. Chou-Heimen Haichi ni Kansuru Saikin no Wadai. (Japanese) Suugaku, **66**, 157–179 (2014) [English translation; Recent topics of arrangements of hyperplanes. Sugaku Expositions **31** (2018), 43–67] (H. Terao, M. Yoshinaga)

65. Simple-root bases for Shi arrangements. Journal of Algebra **422**, 89–104 (2015) (T. Abe, H. Terao)

66. Free filtrations of affine Weyl arrangements and the ideal-Shi arrangements. Journal of Algebraic Combinatorics **43**, 33–44 (2016) (T. Abe, H. Terao)

67. The freeness of ideal subarrangements of Weyl arrangements. J. Eur. Math. Soc. **18**, 1339–1348 (2016) (T. Abe, M. Barakat, M. Cuntz, T. Hoge, H. Terao)

68. Canonical systems of basic invariants for unitary reflection groups. Canadian Mathematical Bulletin **59**, no.3, 617–623 (2016) (N. Nakashima, H. Terao, S. Tsujie)

69. Logarithmic vector fields for curve configurations in P^2 with quasihomogeneous singularities. (arXiv:1407.3237) Mathematical Research Letters **25**, no.6, 1977–1992 (2018) (H. Schenck, H. Terao, M. Yoshinaga)

70. Multiple addition, deletion and restriction theorems for hyperplane arrangements. Proc. Amer. Math. Soc. **147**, no.11, 4835–4845 (2019) (T. Abe, H. Terao)

71. On A_1^2 restrictions of Weyl arrangements. J. Algebraic Combin. **54**, 353–379 (2021) (T. Abe, H. Terao, T. N.Tran)

C. Papers (non-refereed)

1. Logarithmic forms and cohomology of complement of hypersurfaces (Master thesis).

2. Fukuso shaei kuukanjoo no yuuri bibun keishiki no nasu fukutai ni tsuite. Kyoodai suuriken kookyuuroku 273, 151-163 (1976).

3. On the logarithmic differentials. Kyoodai suuriken kookyuuroku 281, 177-195 (1976).

4. Logarithmic vector fields and a generalized Coxeter equality. Kyoodai suuriken kookyuuroku387, 29-37 (1980).

5. New exponents and Betti numbers of complement of hyperplanes. Kyoodai suuriken kookyuuroku 415, 177-195 (1981).

6. On the exponents of a free divisor. Lecture Note for AMS Summer Institute S3-HT-1-7, (1981).

7. The discriminant and the bifurcation set, Kyoodai suuriken kookyuuroku 474, 88-97 (1983).

8. The bifurcation set and logarithmic vector fields. Abstracts Amer. Math. Soc. 4, no.3, 236 (1983)

9. Arrangement no tokusei takousiki to logarithmic multi vector fields. Kyoodai suuriken kookyuuroku 595, 13-20 (1986).

10. A remark on the Jacobian of the basic invariants of a reflection group. (Japanese) Kyoodai suuriken kookyuuroku 634, 18-24 (1987).

11. Reflection groups, combinatorics, and multi-derivations. (Introduction and references) Kyoodai suuriken kookyuuroku 634, 25-39 (1987).

12. Hyperplane arrangements and reflection groups. Report on the XXth Ohio State-Denison Mathematics Conference. The Ohio State University, 1988.

13. Chou-Heimen Haichi to Chou-Kika Sekibun. (Japanese) Daisuu Kika Kinosaki Symposium Kiroku, 1-9 (1998).

14. Edelman-Reiner yosou no kaiketsu ni tsuite. (Japanese) Proceedings of the sixth symposium on representatios of algebraic groups and quantum groups, 101-110 (2003).

15. Hyperplane arrangements and statistics. (Japanese) Proceedings of the fouty-eighth symposium on algebra, 69-77 (2003).

16. Ranking Patterns of the Unfolding Model and Arrangements. Proceedings of the annual meeting of Japan Statisitical Society, 2003 (to appear) (H. Kamiya, P. Orlik, A. Takemura, H. Terao)

17. Weyl haichi no ideal bubun haichi no jiyuusei. (Japanese) Kyoodai suuriken kookyuuroku 1870, 115–126 (2013).

18. Multiple addition, deletion and restriction theorems for hyperplane arrangements. (T. Abe, H. Terao), arxiv: 1801.01790.

D. Reviews

More than 150 reviews on Mathematical Reviews

E. Other Publications

1. Chuugoku no amari (Chinese Remainder) (Japanese)
   Daigaku e no suugaku, Tokyo Shuppan, Apr., 1989, 74-77.

2. Daireikai Shaeiheimen (Spiritual Projective Space) (Japanese) Daigaku e no suugaku, Tokyo Shuppan, June, 1989, 52-55.

3. Kitei, Jigen, Kaisuu ni tsuite no Taiwa (A Dialog on Basis, Dimension, and Rank) (Japanese) Suugaku Seminar, Nihon Hyooron Sha, Oct., 1989, 54-57.

4. 3-geimu to Chikan (The 3-Game and Permutations) (Japanese) Daigaku e no suugaku, Tokyo Shuppan, Oct., 1989, 54-57.

5. Kakko no Tsukekata Koza(How to Put Parentheses) (Japanese) Daigaku e no suugaku, Tokyo Shuppan, Jan., 1990, 52-55.

6. Nichibei Sansuu Masatsu?(Japan-US Arithmetics Friction?) (Japanese) Daigaku e no suugaku, Tokyo Shuppan, Mar., 1990, 64-67.

7. Möbius no Hanten(The Möbius Inversion) (Japanese) Daigaku e no suugaku, Tokyo Shuppan, May, 1990, 74-77.

8. Kagami no Kuni to 2-ji Houteishiki (The Land of Mirrors and Quadratic Equations) (Japanese) Daigaku e no suugaku, Tokyo Shuppan, August, 1990, 54-57.

9. Fooko in USA. (chromatic polynomials I) (Japanese) Daigaku e no suugaku, Tokyo Shuppan, December, 1990, 54-57.

10. Fooko in USA. II (chromatic polynomials II) (Japanese) Daigaku e no suugaku, Tokyo Shuppan, March, 1991, 54-57.

11. Let's Make a Deal at Disney World (Japanese) Daigaku e no suugaku, Tokyo Shuppan, June, 1991, 58-61.

12. Palindromes and orbits (Japanese) Daigaku e no suugaku, Tokyo Shuppan, Oct., 1991, 58-61.

13. Combinatorics of Arrangements of Hyperplanes (Japanese) Suuri-Kagaku, Saiensu-sha, Jul., 1995, 29-33.

14. Pros and cons: Lives of math professors in the USA (Japanese) Suugaku Seminar, Nihon Hyooron Sha, July, 1998, 2-6.

15. Between finiteness and infiniteness. (a discussion among Toshitake Kohno, Kyoji Saito, and Hiroaki Terao) (Japanese) Suugaku Seminar, Nihon Hyooron Sha, August, 1998, 30-35.

16. Limits in high schools, topology in colleges (Japanese) Suugaku Seminar, Nihon Hyooron Sha, April, 2000, 51-55 =In: "Daigaku de dono you na suugaku wo manabu ka," Nihon Hyooron Sha, Jan. 2002.

17. Yamato Nadeshiko to Rikei Banare (Japanese) Suugaku Seminar, Nihon Hyooron Sha, June, 2001, 1.

18. What are the invariants? (Fuhenryou to wa nani ka?) (Japanese) Bluebacks 1393, Kodansha, Nov, 2002, 246pp. (J. Imai, H. Terao, H. Nakamura)

19. Hyperplane arrangements and singularities (Chou Heimen Haichi to Tokuiten) (Japanese) Suugaku no Tanoshimi, Nihon Hyooron Sha, Nov. 2005, 65–79

20. Linear Algebra - Lectures and Exercises (Senkei Daisuu - Kougi to Enshuu) (Japanese) Baifuukan, Apr., 2007, 171pp. (M. Kobayashi, H. Terao)

21. On the study how to promote mathematics research to create innovations (Innovation souchutsu no tame no suugaku kenkyuu no chousa ni tsuite) (Japanese), Suugaku Seminar, Nihon Hyooron Sha, August, 2008, 46-49.

22. On the Catalan numbers -Mathematics Live 2009, a lecture for high school students at Hokkaido University- (Japanese), Suugaku Seminar, Nihon Hyooron Sha, August, 2009, 8-12.

23. Invariants and symmetry (Fuhenryou to taishousei) (Japanese) Chikuma Gakugei Bunko, Chikuma Shobou, March, 2013, 292pp. (J. Imai, H. Terao, H. Nakamura)

24. Linear Algebra - Lectures and Exercises, Revised Edition (Senkei Daisuu - Kougi to Enshuu Kaiteiban) (Japanese) Baifuukan, Feb., 2014, 189pp. (M. Kobayashi, H. Terao)

25. Preface (Kantougen) (Japanese) Suugaku Tsuushin, Math. Soc. Japan, **18**(4), Feb., 2014, 2-3.

26. Preface (Kantougen) (Japanese) Suugaku Tsuushin, Math. Soc. Japan, **24**(1), May, 2019, 3-4.

Talks (1983-)

1. The bifurcation set and logarithmic vector fields. Special session of singularities of algebraic and analytic geometry, the 803rd Meeting of AMS, at New York, NY, Apr. 14, 1983.

2. Free arrangement of hyperplanes over K. AMS 1983 Summer Research Conference Series, Combinatorics and algebra at Boulder, Col., June 7, 1983.

3. The Coxeter arrangements and the Coxeter number. Sympo. on algebraic groups and invariants at Nagoya, Oct. 11, 1983.

4. Arrangements of hyperplanes and differential forms. U.S.-Japan seminar on singularities in Tsukuba, July 20, 1984.

5. The lattice and topology of arrangements. Sympo. on complex analytic singularity at Tokyo Metropolitan Univ., Dec. 6, 1984.

6. The arrangements of hyperplanes - A survey I, II - Semester on Singularities at Banach Center, Warsaw, Apr. 1, 2, 1985.

7. New formula for the characteristic polynomial of an arrangement. Sympo. on complex analytic singularities at RIMS, Kyoto Univ., Dec. 2, 1985.

8. A new formula for the characteristic polynomial of an arrangement. Intern. Conference on Singularities at Univ. of Iowa, Jul. 31, 1986.

9. Reflection groups, combinatorics and multi derivations. Sympo. on problems in analytic varieties and stratified spaces at RIMS, Kyoto Univ., Oct. 22, 1986.

10. Mathematics on Families of Hyperplanes. Special Lecture at Annual Meeting of Japan Mathematical Society at University of Tokyo, Komaba, Apr. 1, 1987.

11. Arrangement of hyperplanes and reflection groups. Colloquium at University of Wisconsin, Jan., 1988.

12. Hyperplane arrangements and reflection groups. The XXth Ohio State-Denison Conference at Denison University, Ohio, USA, Feb. 27, 1988.

13. Combinatorics of hyperplane arrangements. Colloquium of MIT, Harvard, and Brandeis Univ., Cambridge, MA, Mar. 10, 1988.

14. Arrangement of hyperplanes and reflection groups. At Combimatorics Semi. at MIT., Cambridge, MA, Mar. 11, 1988.

15. Discriminants and arrangements of hyperplanes. Colloquium at University of Iowa, July 26, 1988.

16. On the Jacobian ideal of a hyperplane arrangement. Special MSI lecture at Cornell University, NY, July 29, 1988.

17. On a free resolution of a Jacobian ideal. RIMS, Kyoto University, Aug. 18, 1988.

18. On free resolutions of the modules of logarithmic forms. Symposium on Singularities, Hokkaido University, Jan. 26, 1989.

19. An algebraic study of arrangements of hyperplanes. Combinatorics and Geometry, Stockholm, (invited talk), Aug. 10, 1989.

20. An algebraic study of arrangements of hyperplanes, Symposium on Singularities and related topics, Yokahama National Univ., Sept. 6, 1989.

21. Finite unitary reflection groups and the Coxeter number, Sympo. on complex analytic geometry and related topics at RIMS, Kyoto Univ., Dec. 6, 1989.

22. Mathematics of Families of Hyperplanes - Its Past, Present and Future-, Sympo. on combinatorics and related topics at RIMS, Kyoto Univ., Mar. 16, 1990.

23. On the Free Arrangements I, II . Sympo. on combinatorics and geometry at RIMS, Kyoto Univ., Mar. 19, 20, 1990.

24. Arrangements of Hyperplanes and Graded Algebras. ICM-90 satellite conference on Commutative Algera and Combinatorics. Nagoya, Japan. August 15-19, 1990.

25. Arrangements of Hyperplanes and Graded Algebras. Colloquium at Northern Arizona Univ., Flagstaff, Arizona. March 26, 1991.

26. Finite Reflection Groups and the Coxeter Numbers. Colloquium at University of Arizona, Tucson, Arizona. March 28, 1991.

27. Finite Reflection Groups and the Coxeter Numbers. Colloquium at University of Wisconsin, Madison, Wisconsin. April 26, 1991.

28. Finite Reflection Groups and the Coxeter Numbers. Combinatorics Seminar at MIT, Cambridge, Massachussetts. May 29, 1991.

29. Relation Spaces of Free Arrangements of Hyperplanes. Sympo. on period maps at RIMS, Kyoto Univ., Aug. 7, 1991.

30. On the Arrangement Divisor of Hyperplanes. Colloquium at Tokyo Metropolitan University, Tokyo, Japan. Aug. 12, 1991.

31. Arrangements. Invited one-hour lecture at College of Singularities at International Centre for Theoretical Physics at Trieste, Italy, Aug. 19, 1991.

32. Coxeter Arrangements Are Hereditarily Free. Mittag-Leffler Institute, Stockholm, May 20, 1992.

33. Coxeter Arrangements Are Hereditarily Free. Colloquium at Tokyo Metropolitan University, Tokyo, Japan. June 11, 1992.

34. Coxeter Arrangements Are Hereditarily Free. Colloquium at Tokyo Institute of Technology, Tokyo, Japan. June 22, 1992.

35. Arrangements of Hyperplanes and Reflection Groups. Sympo. on Algebraic Combinatorics, Gifu, Japan. June 29, 1992.

36. Algebraic Study of Hyperplane Arrangements. Invited one-hour lecture at NSF Regional Geometry Institute, Amherst, Massachussetts. July 20, 1992.

37. Arrangements, logarithmic forms, and Milnor fibers. Colloquium at University of Illinois at Chicago, Apr. 14, 1993.

38. Logarithmic forms, arrangements, and Milnor fibers. Invited one-hour lecture at International Geometry Colloquium, Moscow, Russia, May 12, 1993.

39. Milnor fibers and arrangements. Algebraic geometry seminar, Nagoya University, Japan, June 14, 1993.

40. Twisted de Rham complexes of logarithmic differential forms and arrangements of hyperplanes. Colloquium at University of North Carolina, Chapel Hill, NC, April 15, 1994.

41. Twisted de Rham complexes of logarithmic differential forms and arrangements of hyperplanes. Topology Seminar at Université de Bourgogne, Dijon, France, June 16, 1994.

42. Twisted de Rham complexes of logarithmic differential forms and arrangements of hyperplanes. Colloquium at University of Essen, Essen, Germany, June 22, 1994.

43. The number of critical points of a product of powers of linear functions. Algebraic Geometry Seminar at University of Essen, Essen, Germany, June 22, 1994.

44. Twisted de Rham complexes of logarithmic differential forms and arrangements of hyperplanes. (invited 75 minutes talk) Conference on Arrangements of Hyperplanes at CIRM, Luminy, France, July 5, 1994.

45. Folkman complexes and local system cohomology. Combinatorics Seminar at IAS, Princeton, NJ, Dec 5, 1994.

46. Combinatorics and the cohomology of a local system on the complement of hyperplanes. Symposium on Complex Geometry at Tokyo Metropolitan University, Jan 9, 1995.

47. Combinatorics and arrangements of hyperplanes. Special colloquium at Nagoya University, Jan 11, 1995.

48. Combinatorics and arrangements of hyperplanes. A series of talks (4 hours in total) at Workshop on arrangements of hyperplanes and related subjects at University of Tokyo, Jan 17 - 19, 1995.

49. Cohomology of local systems, arrangements of hyperplanes, and hypergemetric functions. Colloquium at University of Oregon, Eugene, Oregon, May 1, 1995.

50. Arrangements and Milnor fibers. Université d'Angers, France, June 3, 1995.

51. Local system cohomology, arrangements of hyperplanes, and hypergeometric functions. Colloquium at Michigan State University, Dec. 7, 1995

52. Arrangements of hyperplanes and hypergeometric β-period matrices. Invited one-hour talk at a Special Session of AMS Meeting, University of Iowa, Mar. 21, 1996

53. Arrangements of hyperplanes and hypergeometric β-determinants. Invited 50-minute talk at a Conference on Algebraic Combinatorics, Hokkaido University, July 3, 1996

54. Arrangements of hyperplanes and hypergeometric β-determinants. Workshop on Arrangements of Hyperplanes and Hypergeometric Systems, University of Tokyo, Two 60-minute talks, July 8, 9, 1996

55. The determinant of period matrix for a real arrangement of hyperplanes. Colloquium at SUNY at Stony Brook, March 6, 1997

56. The determinant of period matrix for a real arrangement of hyperplanes. Discrete Mathematics Seminar at UC Berkeley, March 10, 1997

57. Double Coxeter arrengements. Colloquium at Tohoku University, May 19, 1997

58. Double Coxeter arrengements. Colloquium at Kyushu University, June 18, 1997

59. Hyperplane arrangements and hypergeometric functions. three invited 90 minute talks at Tahensuu Kansuu-ron (Function theory of several variables) Summer Seminar at Ikoi no mura Wakayama, Susami, Wakayama, July 17, 18, 1997

60. Hyperplane arrangements and hypergeometric integrals - an introduction -, Workshop on Real and Complex Singularities, Kagoshima Univ., Oct. 16, 1997.

61. Hyperplane arrangements and hypergeometric functions. Minifestival for algebraic geometry, GARC, Seoul National University, Seoul, Korea, Oct. 31, 1997

62. Hyperplane arrangements and hypergeometric functions. Combinatorial representation theory and representation-theoretic combinatorics, RIMS, Kyoto University, Nov. 3, 7, 1997

63. Hyperplane arrangements and hypergeometric functions. Algebraic geometry symposium, Kinosaki Nov. 11, 1997

64. Hypergeometric period matrices. Colloquium at Saitama University, Nov. 28, 1997

65. On the connection associated of a family of arrangements. Algebraic Geometry/Geometry Seminar at Nagoya University, Jan. 13, 1998

66. On the connection associated of a family of arrangements. Colloquium at Kanazawa University, Feb. 4, 1998

67. On Combinatorial Aspects of the Hypergeometric Function Theory. special one-hour lecture at MSJ Annual Meeting, Meijo University, Nagoya, March 29, 1998

68. Hyperplane arrangements and hypergeometric functions. Colloquium at Tokyo Metropolitan University, May 28, 1998

69. Antiinvariant differential forms and logarithmic differential forms of Coxeter arrangements, Workshop on mathematics related to arrangements of hyperplanes (invited one-hour talk), Tokyo Metropolitan University, July 14, 1998

70. Hyperplane arrangements and hypergeometric functions, Colloquium at Computer Science Department, University of Tokyo, March 10, 1999

71. Arrangements of hyperplanes - an introduction and applications -, Topology Seminar at University of Tokyo, June 1, 1999

72. Flat connections arising from a family of arrangements, "Arrangements in Boston" A Conference on Hyperplane Arrangements, Northeastern University, Boston, June 15, 1999

73. Flat connections arising from a family of arrangements, "International Workshop on Physics and Combinatorics," Nogoya University, August 27, 1999

74. Moduli spaces of arrangements and their combinatorial properties, Combinatorics Seminar, MIT, Cambridge, MA, USA, Sep. 1, 1999

75. Introduction to arrangements of hyperpplanes, Encounter with Mathematics "Mathematics related to arrangements of hyperplanes," Chuo University, Tokyo, Oct. 22, 23, 1999

76. Arrangements of hyperplanes and hypergeometric functions, Colloquium, Hanoi Institute of Mathematics, Dec. 24, 1999

77. Double Coxeter arrangements, the Shi arrangements, anti-invariant forms and logarithmic forms, "Combinatorics of Lie type," University of Wisconsin, Madison, WI, USA, June 20, 2000

78. The Shi arrangements and double derivations, "Combinatorics and Physics," Nagoya University, August 23, 2000

79. The Shi arrangements and double derivations, Northern Arizona University, September 1, 2000

80. The Shi arrangements and double derivations, Texas A & M University, September 6, 2000

81. The Shi arrangements and double derivations, Millican Lecture, Colloquium, University of North Texas, September 8, 2000

82. Multiderivations of Coxeter arrangements, Workshop and special session on arrangements of hyperplanes, Columbia University, November 3, 2000

83. Multiderivations of Coxeter arrangements, Workshop on arrangements, ETH, Zurich, December 6, 2000

84. Algebras generated by reciprocals of linear forms, Colloquium, Okayama University, June 13, 2001

85. Algebras generated by reciprocals of linear forms, The international symposium on singularity theory and their applications I, Beijing University of Chemical Technology, China, July 6, 2001

86. Multiderivations of Coxeter arrangements, International workshop on integral models, combinatorics and representation theory, RIMS, Kyoto, August 12, 2001

87. Moduli space of combinatorially equivalent arrangements of hyperplanes and logarithmic Gauss-Manin connections, three one-hour talks at Conference on arrangements of hyperplanes at Univ. Nice, Sep. 28, 29, 2001

88. Reflection groups and primitive derivative. special one-hour lecture at MSJ Annual Fall Meeting, Kyushu University, Fukuoka, Oct. 4, 2001

89. Algebras generated by reciprocals of linear forms, special session on algebraic and topological combinatorics, Williams College, Williamstown, MA, USA, Oct. 13, 2001

90. Geometry of the orbit spaces of reflection groups and reflection arrangements. Colloquium, Sophia University, Tokyo, Dec. 10, 2001

91. Reflection groups, primitive derivations and geometry of the orbit space. one-hour invited address at a NSF-CBMS conference "Arrangements and mathematical physics," Louisiana State University, Baton Rouge, LA, USA, Jan. 14, 2002

92. Poincaré series of rational functions with poles on hyperplanes, Workshop on generating functions, Hokkaido Univ., Sapporo, Jan. 23, 2002

93. Poincaré series of rational functions which are regular outside hyperplanes, Miniworkshop on cohomology jumping loci, Oberwolfach, Germany, Mar. 5, 2002

94. The Hodge filtration and the contact-order filtration of derivations of Coxeter arrangements, (an invited 50 minute talk), Workshop on Frobenius manifolds, quantum cohomology, and singularities, MPI, Bonn, Germany, July 16, 2002

95. Multiderivations of Coxeter arrangements and the geometry of the orbit spaces, special session on arrangements of hyperplanes, Univ. Wisconsin, Madison, WI, USA, Oct. 12, 2002

96. Coxeter arrangements and derivation modules. Lie algebra seminar, Univ. Wisconsin, Madison, WI, USA, Dec. 3, 2002

97. On the vector fields tangent to a reflection arrangement. Contact structures, singularities and related topics, Kure, Hiroshima, Japan, January 30, 2003

98. Introduction to hyperplane arrangements, Department of Mathematical Informatics, University of Tokyo, Feb. 21, 2003

99. Some combinatorial properties of the root systems, The sixth symposium on representatios of algebraic groups and quantum groups, Karuizawa, Japan, June 20-22, 2003

100. Hyperplane arrangements and statistics, Algebra symposium, Nagoya, Japan, August 5, 2003

101. Root systems, vector fields and geometry of orbit spaces, Mathematical Society of Japan, 12th International Research Insitute, Singularity Theory and Its Applications, Sapporo, Japan, September 22, 2003

102. On the Edelman-Reiner conjecture and a new criterion for arrangements to be free, American Mathematical Society, Annual Meeting, special session on combinatorics and geometry, Phoenix Civic Center, Phoenix, AZ, USA, Jan. 8, 2004

103. Free arrangements of hyperplanes (a survey), MSRI, Berkeley, CA, USA, Aug. 23, 2004

104. Hypergeometric integrals and arrangements of hyperplanes (an introduction using the classical examples), MSRI, Berkeley, CA, USA, Aug. 24, 2004

105. Free arrangements of hyperplanes, Combinatorics seminar, UC Davis, CA, USA, Oct. 23, 2004

106. On the multi-free arrangements MSRI, Berkeley, CA, USA, Nov. 5, 2004

107. Commutative rings arising from arrangements of hyperplanes Commutaive algebra and algebraic geometri seminar UC Berkeley, CA, USA, Nov. 9, 2004

108. What makes arrangements free? Colloquium, Northern Texas Univ., TX, USA, Dec. 14, 2004

109. Free arrangements of hyperplanes, Periods -Around the Theory of Primitive Forms- In Honor of Professor Kyoji Saito on his Sixtieth Birthday, Research Institute for Mathematical Sciences (RIMS) Kyoto University, January 26, 2005

110. Arrangements of hyperplanes and hypergeometric integrals, Applications of singularities workshop at CIRM, Marseille Luminy, February 7, 2005

111. What makes arrangements free? Euroconferences in Mathematics on Crete, Algebraic and Geometric Combinatorics, Anogia, Greece, August 21, 2005

112. Introduction to hyperplane arrangements - Especially on free arrangements - Recent topics on real and complex singularities, Research Institute for Mathematical Sciences (RIMS) Kyoto University, Nov. 28, 2005

113. Multiderivations of Coxeter Arrangements of Type B_ℓ and Primitive Derivations, Colloquium, Northern Arizona University, Feb. 17, 2006

114. Various phases of arrangements of hyperplanes, Colloquium, Hokkaido University, April 28, 2006

115. Multiderivations of real reflection arrangements, The international symposium on singularity theory and their applications II, Beijing University of Chemical Technology, China, May 10, 2006

116. On the Catalan numbers, a talk for at Hokkaido University for high school students, Hokkaido University, Jul. 31, 2006

117. Multiderivations of Coxeter Arrangements of Type B_ℓ and Primitive Derivations, Geometry and Analysis on Complex Algenbraic Varieties, Joint RFBR-JSPS Symposium, Moscow Independent University, Aug. 17, 2006

118. Chambers of arrangements of hyperplanes and Arrow's impossibility theorem, Development of Computational Algebraic Statistics, Research Institute for Mathematical Sciences (RIMS) Kyoto University, Nov. 8, 2006

119. Chambers of arrangements of hyperplanes and Arrow's impossibility theorem, Colloquium, Okayama University, Nov. 9, 2006

120. Basic properties of multiarrangements, Geometry and analysis on complex varieties, Research Institute for Mathematical Sciences (RIMS) Kyoto University, Dec. 13, 2006

121. Chambers of arrangements of hyperplanes and Arrow's impossibility theorem, American Mathematical Society, Annual Meeting, special session on Arrangements and Related Topics, New Orleans Sheraton, New Orleans, LA, USA, Jan. 6, 2007

122. Chambers of arrangements of hyperplanes and Arrow's impossibility theorem, Braids and their Ramifications - Configuration Spaces, Arrangements, Mapping, Mapping-Class groups, 3-Manifolds, Cortona, Italy, May 24, 2007.

123. The characteristic polynomials of (multi)arrangements, CIMPA summer school ALS & S 2007, Arrangements and Local Systems, Istanbul, Turkey, June 15, 2007.

124. The characteristic quasi-polynomial of integral arrangements and root systems, CIMPA summer school ALS & S 2007, Arrangements and Local Systems, Istanbul, Turkey, June 15, 2007.

125. Periodicity of integral arrangements modulo positive integers, Several Aspects of Hyperplane Arrangements, Kobe, Japan, Feb. 4, 2008.

126. On the free multiarrangements, Several Aspects of Hyperplane Arrangements, 1037TH American Mathematical Society Meeting, special session on Arrangements and Related Topics, Louisiana State University, Baton Rouge, LA, USA, Mar. 28, 2008

127. On the free multiarrangements, Millican Lecture, Colloquium, University of North Texas, May 2, 2008

128. Totally free arrangements of hyperplanes, Conference in Honour of Peter Orlik, Fields Institute, Toronto, Canada, Aug. 19, 2008

129. Periodicity of hyperplane arrangements with integral coefficients modulo positive integers, Finite Groups, vertex operator algebras and combinatorics, RIMS, Kyoto University, Jan. 6, 2009

130. Mathematics related to hyperplane arrangements, Geometry of singularities and related topics, Tokyo University of Science, Mar. 13, 2010

131. Mathematics related to hyperplane arrangements, special one-hour lecture (by a 2010 Algebra Prize recipient) at MSJ Annual Meeting, Keio University, Yokohama, March 26, 2010

132. Algebra and geometry of hyperplane arrangements, colloquium, Hokkaido University, May 21, 2010

133. Combinatorial and algebro-geometric properties of free arrangements, an invited one-hour talk, Workshop on "Algebra and Geometry of Configuration Spaces and related structures" June 21 - 25, 2010, Centro di ricerca matematica Ennio De Giorgi, Pisa, Italy, June 22, 2010

134. The Shi arrangements and the Bernoulli numbers, an invited talk at the Special Session on "The Algebraic Geometry and Topology of Hyperplane Arrangements" at an AMS Sectional Meeting, April 9-10, 2011, College of the Holy Cross, Worcester, MA, USA, April 9, 2011

135. Simple bases for the logarithmic derivation modules of the generalized Shi arrangements, an invited talk at "Topics in the Theory of Weyl Groups and Root Systems (Sekiguchi 60)," September 20-22, 2011, University of Tokyo, September 20, 2011

136. Primitive derivations, Shi arrangements and Bernoulli polynomials, an invited talk at the Special Session on "Singularities, Stratifications and their Applications" at an AMS Sectional Meeting, March 3-4, 2012, University of Hawaii Manoa, Honolulu, HI, USA, March 3, 2012 (with D. Suyama)

137. Height basis of Weyl arrangements. an invited talk at the "Arrangements in Pyrenees," School on hyperplane arrangements and related topics, June 11-15, 2012, Universite de Pau, France, June 11, 2012

138. Primitive derivations, Shi arrangements, Bernoulli polynomials and the height-free conjecture. an invited one-hour talk at the "FPSAC '12 (The 24th International Conference on Formal Power Series and Algebraic Combinatorics)," July 30-August 3, 2012, Nagoya University, August 2, 2012

139. Primitive derivations, Shi arrangements and Bernoulli polynomials. an invited talk at the 2012 Shanghai Conference on Algebraic Combinatorics, August 17 – 22, 2012, Shanghai Jiao Tong University, August 20.

140. Primitive derivations, Shi arrangements and Bernoulli polynomials. a colloquium talk at Northeastern Normal University, Chanchun, September 28, 2012

141. Logarithmic derivation modules of Shi arrangements associated with root systems. an invited talk at "Combinatorial Representation Theory and Related Topics," October 9-12, 2012, RIMS, Kyoto University, October 11, 2012

142. Logarithmic derivation modules of Shi arrangements associated with root systems. an invited talk at Workshop on "Free Divisors and Differential Equations," November 5-10, 2012, Tokyo University of Agriculture and Technology, November 8, 2012

143. Logarithmic derivation modules of Shi arrangements associated with root systems. an invited talk at Conference on "Hyperplane Arrangements: Combinatorial and Geometric Aspects," February 21-22, 2013, Ruhr-Universität Bochum, Germany, February 21, 2013

144. The freeness of ideal subarrangements of Weyl arrangements. an invited talk at Conference on "The 6th Pacific RIM Conference on Mathematics 2013," Jully 1-5, 2013, Sapporo Convention Center, July 2, 2013

145. Multiple addition/deletion theorems and the existence of free paths in the affine Weyl arrangements. Combinatorics Seminar, Nagoya University, July 11, 2013

146. The freeness of ideal subarrangements of Weyl arrangements. Combinatorics seminar, State University of New York at Binghamton, July 25, 2013

147. On ideal subarrangements of Weyl arrangements. an invited talk at Conference on "Hyperplane arrangements and characteristic classes," November 11-15, 2013, RIMS, Kyoto University, November 12, 2013

148. On ideal subarrangements of Weyl arrangements. an invited talk at Conference on "Japanese Turkish Joint Geometry Meeting," November 21-24, 2013, Galatasaray University, Istanbul, Turkey, November 22, 2013

149. On ideal subarrangements of Weyl arrangements. invited four lectures at CIMPA-UNESCO-MESR-MINECO-VIETNAM research school on "Geometry and Topology of Singular Varieties. Theory and Applications," December 2-14, 2013, the Institute of Mathematics, Vietnam Academy of Science and Technology, Hanoi, Vietnam

150. The freeness of ideal-Shi arrangements and free paths in affine Weyl arrangements (and a question). an invited talk at Workshop on "New perspectives in hyperplane and reflection arrangements," February 10, 2014, Ruhr-Universität Bochum, Germany, February 10, 2014

151. On ideal subarrangements of Weyl arrangements. FPSAC '14 (The 26th International Conference on Formal Power Series and Algebraic Combinatorics), June 29-July 3, 2014, DePaul University, Chicago, USA, June 30, 2014

152. On ideal subarrangements of Weyl arrangements. an invited talk at "The 13th International Workshop in Real and Complex Singularities," July 27 - August 1st, 2014, Instituto de Ciências Matemáticas e de Computação Universidade de São Paulo, Campus São Carlos, São Paulo, Brasil, July 28, 2014

153. Chambers of Arrangements and Arrow's Impossibility Theorem. Workshop at "Recent developments on geometrical and algebraic methods in Economics," August 22 - 24, 2014, Hokkaido University, August 22, 2014

154. Ideals of the roots posets and a new proof of the dual-partition formula by Shapiro-Steinberg-Kostant-Macdonlald. an invited talk at "The 2nd Franco-Japanese-Vietnamese Symposium on Singularities," August 25 - 29, Hokkaido University, August 26, 2014

155. Multiple addition theorem on arrangements of hyperplanes and a proof of the Shapiro-Steinberg-Kostant-Macdonald dual-partition formula. an invited talk at "The 1st Workshop of JSPS-MAE Sakura Program "Geometry and Combinatorics of Hyperplane Arrangements and Related Problems"," September 1 - 5, Hokkaido University, September 3, 2014

156. Free filtrations of affine arrangements of infinitely many hyperplanes. an invited talk at "Hokkaido University - University of Bremen Joint Seminar "Arrangements of Hyperplanes"," December 1 - 3, University of Bremen, December 1, 2014.

157. Ideal Free Theorem and Saturated Free Filtrations of Affine Weyl Arrangements. an invited talk at "The 10th Kagoshima Algebra-Analysis-Geometry Seminar," February 16 - 19, Kagoshima University, February 17, 2015.

158. Arrangements of hyperplanes and applications. an invited special talk, Korea Advanced Institute of Science and Technology, March 13, 2015.

159. Ideal Free Theorem and Saturated Free Filtrations of AffineWeyl Arrangements. an invited talk at "Algebraic structures in combinatorics and geometry," June 6 - 12, RIMS, Kyoto University, June 11, 2015.

160. Ideal Free Theorem and Saturated Free Filtrations os Affine Weyl Arrangements. an invited talk at "Computational Geometric Topology in Arrangement Theory," July 6 - 10, ICERM, Brown University, USA, July 10, 2015.

161. On Parabolic Subarrangements and Restrictions of Weyl arrangements. an invited talk at "Differential and combinatorial aspects of singularities," August 3 - 7, Technische Universität Kaiserslautern, Germany, August 7, 2015.

162. Before and After the Ideal-free Theorem. an invited talk at "Hyperplane arrangements and reflection groups," August 10 - 12, Leibniz Universität Hannover, Germany, August 11, 2015.

163. Multiple addition theorem on arrangements of hyperplanes and a proof of the Shapiro-Steinberg-Kostant-Macdonald dual-partition formula. an invited talk at "Braids, Configuration Spaces, and Quantum Topology," September 7 - 10, the University of Tokyo, September 8, 2015.

164. Subarrangements and restrictions of Weyl arrangements. an invited talk at the Special Session on "Topology and Combinatorics of Arrangements (in honor of Mike Falk)" at an AMS Spring Eastern Sectional Meeting, March 19 - 20, Stony Brook University, USA, March 19, 2016.

165. Reflection Arrangements and Free Arrangements. an invited one-hour talk at "Perspectives in Algebraic Topology, A day in honor of Mario Salvetti on the occasion of his 60th birthday," June 5, University of Pisa, Italy, 2017.

166. Multiple Addition/Deletion Theorems II. an invited talk at "Advances in Arrangement Theory, Mathematical Congress of the Americas (MCA) 2017," Montreal, Canada, July 25, 2017.

167. The Restrictions of Coxeter Arrangements. an invited talk at "Hyperplane Arrangements in Wakkanai (HAW2019)," Wakkanai Hokusei Gakuen University, Hokkaido, Japan, August 23, 2019.