

Publication list:

1. *Real projective surfaces*, Ph.D. Thesis, Princeton University, June 7, 1988.
2. *Convex real projective structures on closed surfaces are closed*, Proc. Amer. Math. Soc. 118 (1993), 657–661 (with W. M. Goldman).
3. *Real projective manifolds developing into an affine space*, Internat. J. Math. 4 (1993), no. 2, 179–191 (with Chae, Younki).
4. *i -convexity of real projective manifolds*, Proc. Amer. Math. Soc. 122 (1994), 545–548.
5. *Convex decompositions of real projective surfaces. I: π -annuli and convexity*, J. Differential Geometry 40 (1994), 165–208.
6. *Convex decompositions of real projective surfaces. II: Admissible decompositions*, J. Differential Geometry 40 (1994), 239–283.
7. *Topology, the proceedings of conference held in honor of Professor Jaepill Kim*, editor 1995 (with Hyuk Kim and Hyunkoo Lee).
8. *The Margulis lemma and the thick and thin decomposition for convex real projective surfaces*, Advances in Math. 122 (1996), 150–191.
9. *Convex decompositions of real projective surfaces. III: For closed or nonorientable surfaces*, J. Korean Math. Soc. 33 (1996), no. 4, 1139–1171.
10. *The classification of real projective structures on compact surfaces*, Bull. Amer. Math. Soc. 34 (1997), 161–171 (with W. M. Goldman).
11. *Geometric structures on manifolds and holonomy-invariant metrics*, Forum Math. 9 (1997), no. 2, 247–256 (with Hyunkoo Lee).
12. *The universal cover of an affine three-manifold with holonomy of discompactness two*, Geometry, topology and physics (Campinas, 1996), 107–118, de Gruyter, Berlin 1997.
13. *Geometry and Topology, the proceedings of Daewoo workshop*, editor 1998.
14. *Convex and Concave decomposition of manifolds with real projective structures*, Mem. Soc. Math. France vol. 78, pp. 1–106, 1999.
15. *The proceedings of the conference on geometric structures*, editor, GARC-Lecture Notes No 46. 1999 (with Hyuk Kim and Hyunkoo Lee).
16. *The universal cover of an affine three-manifold with holonomy of infinitely shrinkable dimension ≤ 2* , International Journal of Mathematics 11 (2000), 305–365. dg-ga/9706011.
17. *The decomposition and classification of radiant affine 3-manifolds*, Mem. Amer. Math. Soc. vol. 730 pp. 1–122, 2001. (with an appendix by Thierry Barbot and Suhyoung Choi).
18. *The Chern conjecture for affinely flat manifolds using combinatorial methods*, Geometriae Dedicata 97 (2003), 81–92.
19. *Geometric structures on low-dimensional manifolds*, Journal of Korean Mathematical Society 40 (2003), 319–340.
20. *The deformation spaces of convex \mathbb{RP}^2 -structures on 2-orbifolds*, Amer. J. Math. 127 (2005), 1019–1102 (with William Goldman).
21. *The deformation spaces of projective structures on 3-dimensional Coxeter orbifolds*, Geom. Dedicata 119 (2006) 69–90.
22. *Maximal tubes under deformations of three-dimensional hyperbolic cone manifolds*, Sibirsk. Mat. Zh. 47 (2006), 1167–1192 (with Jungeun Lee).
23. *Spherical triangles and the two components of the $SO(3)$ -character space of the fundamental group of a closed surface of genus 2*. Internat. J. Math. 22 (2011), no. 9, 1261–1364.

24. Geometric structures on 2-orbifolds: exploration of discrete symmetry, *MSJ Memoirs*, vol. 27, Mathematical Society of Japan, Tokyo, 2012. xii+171 pp. ISBN: 978-4-931469-68-6.
25. *Projective deformations of hyperbolic Coxeter 3-orbifolds*, *Geom. Dedicata* 159 (2012), 125–167. (with Craig Hodgson, Gye-Seon Lee).
26. *The convex real projective manifolds and orbifolds with radial ends I: the openness of deformations*, 1–66, arXiv:1011.1060.
27. *The topological and geometrical finiteness of complete flat Lorentzian 3-manifolds with free fundamental groups*, 1–40, arXiv:1204.5308. (with Bill Goldman)
28. *The definability criterion for cocompact convex projective polyhedral reflection groups*, 1–20, arXiv:1206.2387. (with Kanghyun Choi, submitted to *Geom. Dedicata*)
29. *Projective deformations of weakly orderable hyperbolic Coxeter orbifolds*, 1–31, arXiv:1207.3527. (with Gye-Seon Lee, currently being revised for *Geometry and Topology*)
30. The classification of radial ends of convex real projective orbifolds, in preparations

Selected Conferences and talks:

1. Amer. Math. Soc. Meeting, Lawrence, Kansas, Special Session, October, 1988.
2. The first joint meeting of the Amer. Math. Soc. and the London Math. Soc., Cambridge, UK., Special Session, July, 1991.
3. Amer. Math. Soc. Meeting, Boston, MA, Special Session, October, 1994.
4. Conference on Geometry, Topology, and Physics, Campinas, Brazil, July 1996.
5. Combinatorial problems arising in knots and 3-manifolds, MSRI, January 1997.
6. Amer. Math. Soc. Meeting, College Park, MD. Special Session, April, 1997.
7. Cone-manifolds and hyperbolic geometry, MSJ Regional Workshop, Tokyo, Japan 1998.
8. Deformation spaces of Kleinian groups and Teichmüller spaces, Osaka, Japan 1998.
9. Conference on group actions on manifolds, Oberwolfach, February 1998.
11. Crystallographic groups and their generalizations II, Kortrijk, Belgium May 1999.
12. Amer. Math. Soc. Meeting, Washington, DC. Special Session, January 2000.
13. Conference on Differential Geometry and Lie groups, Korea Institute of Advanced Studies, October 2000.
14. New techniques in Lorentzian geometry, Banff, Canada, November 2004.
15. Discrete Groups and Geometric Structures, with Applications, Oostende Belgium, June 2005.
16. East Asian School of Knot theory and Related Topics in Geometric Topology, August 2005.
17. Manifolds at Melbourne, Melbourne, January 2006.
18. Colloquium, October 1, 2008, Tokyo Institute of Technology.
19. Melbourne Geometry Seminar Talk, May 18, 2009.
20. Spherical triangles and the two components of the $SO(3)$ -character space of the fundamental group of a closed surface of genus 2, A talk in the workshop “Geometry, Topology and Dynamics of Character Varieties”, IMA, NUS Singapore July, 2010.
21. Deforming convex real projective 3-orbifolds, MOS, Newton Institute Workshop, March 17, 2011, Oxford University,
22. The MRC special session on real projective structures, January, 2012. AMS joint meeting, Boston.
23. The topological and geometrical finiteness of complete flat Lorentzian 3-manifolds with free fundamental groups, The workshop on Higher Teichmüller-Thurston theory, October

16, 2012, CRM, Montreal, Canada.

Conferences organized:

1. The conference in honor of J. Kim, Seoul, July 1995, organizer (with Hyuk Kim, Hyunkoo Lee).
2. The conference on gauge theory on manifolds, Seoul, June 1997 organizer (survey speakers: C. Herald (Swarthmore), T. Leness (Michigan State Univ)).
3. The conference on geometric topology, Seoul, September 1997, organizer (with Hyuk Kim and Hyunkoo Lee) (principal speakers: B. Apanasov (Oklahoma), T. Barbot (ENS-Lyon), C. Hodgson (Melbourne), S. Kojima (Tokyo Inst. Tech.), F. Labourie (Paris-Sud), A. Zeghib (ENS-Lyon)).
4. The 7th KAIST Geometric Topology Fair, July 9–11, 2007, Gyeongju, organizer (with K. Koh, K. Jin) (survey speakers: W. Goldman (Maryland), S. Lawton (Porto), E. Peterson (West Point)).
5. A NIMS-KIAS workshop “Hyperbolic geometry: algorithmic, number theoretic and numerical aspects” (A graduate student workshop) March 15–19, 2010 at KIAS, Seoul, organizer (with K. Koh, J. Koo) (survey speakers: C. Hodgson (Melbourne), W. Neumann (Columbia), A. Reid (Austin)).
6. The 8th KAIST Geometric Topology Fair, January 10–15, 2010, organizer (with K. Koh, K. Jin) (survey speaker: D. Witte Morris (Lethbridge)).
7. Intensive Lectures on Real Projective Structures, October 25–27, 2010 at KIAS, Seoul, organizer (survey speaker: D. Alessandrini (Strasbourg)).

Masters students:

1. Jinha Jun, Projective structures on the $(2, 2, 2, 2)$ -orbifold, Seoul National University, Dec. 1995.
2. Su Ho Park, The deformation space of surfaces and holonomy representations, Seoul National University, Dec. 1995.
3. Yung Bo, Yoo, On the graph of the (X, G) -structures, Seoul National University, Dec. 1995.
4. Jungkeun Lee, The deformation space of real projective structures on the $(*n_1n_2n_3n_4)$ -orbifold, Seoul National University, Jan. 1996.
5. Kwan-hui Nam, Projective structures on three-tori, Seoul National University, Dec. 1996.
6. Jeong-rae Kim, Deformations of real projective structures on the figure-eight knot complement, Seoul National University, Dec. 1996.
7. Seongsuk Park, Convex real projective structures on a pair-of-pants, Seoul National University, Dec. 1996.
8. Youngju Kim, On the side approximation theorem, Seoul National University, Dec. 1997.
9. Seung-Il Kim, The deformation space of geometric structures and holonomy representations, Seoul National University, Dec. 1997.
9. Jae-Soon Ha, A study of trace functions of closed curves on projective orbifolds, KAIST, June 2008.

Doctoral students:

1. Jinha Jun, Closed essential surfaces in a knot complement, Seoul National University, Feb. 2003.
2. Jungkeun Lee, Variation of maximal tubes in hyperbolic cone manifolds. Seoul National University, Feb. 2003.
3. Jeong-rae Kim, Projective structures on hyperbolic knot complements, Seoul National University, Feb. 2004.
4. Gye-Seon Lee, Projective deformations of hyperbolic Coxeter 3-orbifolds, KAIST, May 2010.
5. Kanghyun Choi, The definability criterion for cocompact convex projective polyhedral reflection groups, KAIST, Feb. 2013.