

Prof. Dr. Gerhard Huisken: List of publications (January 2014)

1. Arnlin, Joakim; Hoppe, Jens; Huisken, Gerhard *Multi-linear formulation of differential geometry and matrix regularizations*. J. Differential Geom. 91 (2012), no. 1, 1–39.
2. *Geometric partial differential equations: theory, numerics and applications*. Abstracts from the workshop held November 27–December 3, 2011. Organized by Gerhard Dziuk, Charles M. Elliott, Gerhard Huisken and Ralf Kornhuber. Oberwolfach Reports. Vol. 8, no. 4. Oberwolfach Rep. 8 (2011), no. 4, 3077–3144.
3. Brendle, Simon; Huisken, Gerhard; Sinestrari, Carlo *Ancient solutions to the Ricci flow with pinched curvature*. Duke Math. J. 158 (2011), no. 3, 537–551.
4. *Calculus of variations*. Abstracts from the workshop held July 18–24, 2010. Organized by Camillo De Lellis, Gerhard Huisken and Robert J. McCann. Oberwolfach Reports. Vol. 7, no. 3. Oberwolfach Rep. 7 (2010), no. 3, 1827–1884.
5. Huisken, Gerhard; Sinestrari, Carlo *Mean curvature flow with surgeries of two-convex hypersurfaces*. Invent. Math. 175 (2009), no. 1, 137–221.
6. *Calculus of variations*. Abstracts from the workshop held July 6–12, 2008. Organized by Giovanni Alberti, Gerhard Huisken and Robert McCann. Oberwolfach Reports. Vol. 5, no. 3. Oberwolfach Rep. 5 (2008), no. 3, 1707–1769.
7. Huisken, Gerhard; Ilmanen, Tom *Higher regularity of the inverse mean curvature flow*. J. Differential Geom. 80 (2008), no. 3, 433–451.
8. *Mini-workshop: Aspects of Ricci-Flow*. Abstracts from the mini-workshop held May 1–7, 2005. Organized by Klaus Ecker, Tom Ilmanen and Gerhard Huisken. Oberwolfach Reports. Vol. 2, no. 2. Oberwolfach Rep. 2 (2005), no. 2, 1177–1198.
9. Huisken, Gerhard; Ilmanen, Tom *Energy inequalities for isolated systems and hypersurfaces moving by their curvature*. General relativity & gravitation (Durban, 2001), 162–173, World Sci. Publ., River Edge, NJ, 2002.
10. Huisken, Gerhard; Ilmanen, Tom *The inverse mean curvature flow and the Riemannian Penrose inequality*. J. Differential Geom. 59 (2001), no. 3, 353–437.
11. Huisken, Gerhard *Evolution equations in geometry*. Mathematics unlimited—2001 and beyond, 593–604, Springer, Berlin, 2001.
12. Huisken, Gerhard; Klingenberg, Wilhelm *Flow of real hypersurfaces by the trace of the Levi form*. Math. Res. Lett. 6 (1999), no. 5-6, 645–661.
13. Huisken, Gerhard; Polden, Alexander *Geometric evolution equations for hypersurfaces*. Calculus of variations and geometric evolution problems (Cetraro, 1996), 45–84, Lecture Notes in Math., 1713, Springer, Berlin, 1999.
14. Bethuel, F.; Huisken, G.; Müller, S.; Steffen, K. *Calculus of variations and geometric evolution problems*. Lectures given at the 2nd C.I.M.E. Session held in Cetraro, June 15–22, 1996. Edited by S. Hildebrandt and M. Struwe. Lecture Notes in Mathematics, 1713. Fondazione C.I.M.E.. [C.I.M.E. Foundation] Springer-Verlag, Berlin; Centro Internazionale Matematico Estivo (C.I.M.E.), Florence, 1999. vi+294 pp. ISBN: 3-540-65977-3
15. Huisken, Gerhard; Sinestrari, Carlo *Convexity estimates for mean curvature flow and singularities of mean convex surfaces*. Acta Math. 183 (1999), no. 1, 45–70.
16. Huisken, Gerhard *Geometric concepts for the mass in general relativity*. Trends in mathematical physics (Knoxville, TN, 1998), 299–306, AMS/IP Stud. Adv. Math., 13, Amer. Math. Soc., Providence, RI, 1999.
17. Huisken, Gerhard; Sinestrari, Carlo *Mean curvature flow singularities for mean convex surfaces*. Calc. Var. Partial Differential Equations 8 (1999), no. 1, 1–14.
18. Huisken, Gerhard *A distance comparison principle for evolving curves*. Asian J. Math. 2 (1998), no. 1, 127–133.
19. Huisken, Gerhard *Evolution of hypersurfaces by their curvature in Riemannian manifolds*. Proceedings of the International Congress of Mathematicians, Vol. II (Berlin, 1998). Doc. Math. 1998, Extra Vol. II, 349–360
20. Huisken, G.; Ilmanen, T. *The Riemannian Penrose inequality*. Internat. Math. Res. Notices 1997, no. 20, 1045–1058.
21. Huisken, Gerhard *Lecture four: an evolution of metrics by the Ricci curvature*. Tsing Hua lectures on geometry & analysis (Hsinchu, 1990–1991), 137–143, Int. Press, Cambridge, MA, 1997.

22. Huisken, Gerhard *Lecture three: an evolution equation for the isoperimetric problem*. Tsing Hua lectures on geometry & analysis (Hsinchu, 1990–1991), 131–136, Int. Press, Cambridge, MA, 1997.
23. Huisken, Gerhard *Lecture two: singularities of the mean curvature flow*. Tsing Hua lectures on geometry & analysis (Hsinchu, 1990–1991), 125–130, Int. Press, Cambridge, MA, 1997.
24. Huisken, Gerhard *Lecture one: mean curvature evolution of closed hypersurfaces*. Tsing Hua lectures on geometry & analysis (Hsinchu, 1990–1991), 117–123, Int. Press, Cambridge, MA, 1997.
25. Dierkes, Ulrich; Huisken, Gerhard *The N -dimensional analogue of the catenary: prescribed area*. Geometric analysis and the calculus of variations, 1–12, Int. Press, Cambridge, MA, 1996.
26. Huisken, Gerhard; Yau, Shing-Tung *Definition of center of mass for isolated physical systems and unique foliations by stable spheres with constant mean curvature*. Invent. Math. 124 (1996), no. 1-3, 281–311.
27. Huisken, Gerhard *Local and global behaviour of hypersurfaces moving by mean curvature*. Differential geometry: partial differential equations on manifolds (Los Angeles, CA, 1990), 175–191, Proc. Sympos. Pure Math., 54, Part 1, Amer. Math. Soc., Providence, RI, 1993.
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29. *Workshop on Theoretical and Numerical Aspects of Geometric Variational Problems*. Proceedings of the workshop held in Canberra, September 24–28, 1990. Edited by Gerd Dziuk, Gerhard Huisken and John Hutchinson. Proceedings of the Centre for Mathematics and its Applications, Australian National University, 26. Australian National University, Centre for Mathematics and its Applications, Canberra, 1991. x+270 pp. ISBN: 0-7315-0439-9
30. Ecker, Klaus; Huisken, Gerhard *Interior estimates for hypersurfaces moving by mean curvature*. Invent. Math. 105 (1991), no. 3, 547–569.
31. Ecker, Klaus; Huisken, Gerhard *Parabolic methods for the construction of spacelike slices of prescribed mean curvature in cosmological spacetimes*. Comm. Math. Phys. 135 (1991), no. 3, 595–613.
32. Ecker, Klaus; Huisken, Gerhard *A Bernstein result for minimal graphs of controlled growth*. J. Differential Geom. 31 (1990), no. 2, 397–400.
33. Huisken, Gerhard *Asymptotic behavior for singularities of the mean curvature flow*. J. Differential Geom. 31 (1990), no. 1, 285–299.
34. Dierkes, U.; Huisken, G. *The n -dimensional analogue of the catenary: existence and nonexistence*. Pacific J. Math. 141 (1990), no. 1, 47–54.
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36. Ecker, Klaus; Huisken, Gerhard *Interior curvature estimates for hypersurfaces of prescribed mean curvature*. Ann. Inst. H. Poincaré Anal. Non Linéaire 6 (1989), no. 4, 251–260.
37. Huisken, Gerhard *Nonparametric mean curvature evolution with boundary conditions*. J. Differential Equations 77 (1989), no. 2, 369–378.
38. Ecker, Klaus; Huisken, Gerhard *Immersed hypersurfaces with constant Weingarten curvature*. Math. Ann. 283 (1989), no. 2, 329–332.
39. Huisken, Gerhard *The volume preserving mean curvature flow*. J. Reine Angew. Math. 382 (1987), 35–48.
40. Huisken, Gerhard *Deforming hypersurfaces of the sphere by their mean curvature*. Math. Z. 195 (1987), no. 2, 205–219.
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46. Huisken, Gerhard *Flow by mean curvature of convex surfaces into spheres*. Miniconference on nonlinear analysis (Canberra, 1984), 107–112, Proc. Centre Math. Anal. Austral. Nat. Univ., 8, Austral. Nat. Univ., Canberra, 1984.
47. Huisken, Gerhard *Flow by mean curvature of convex surfaces into spheres*. J. Differential Geom. 20 (1984), no. 1, 237–266.
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