

REFERENCES

- [Ai] R. Aiyama, *The generalized Gauss maps of a spacelike submanifold with parallel mean curvature vector in a pseudo-Euclidean space*, Japan J. Math. **20**(1) (1994), 93-114.
- [A] W. Allard, *On the first variation of a varifold*, Ann. Math. **95** (1972), 417-491.
- [A-R] A. Ambrosetti and P. H. Rabinowitz, *Dual variational method in critical point theory and applications*, J. Functional Anal. **14** (1973), 349-381.
- [Ar] N. Aronszajn, *A unique continuation theorem for solutions of elliptic partial differential equations or inequalities*, J. Math. Pure Appl. **36** (1957), 235-249.
- [A-K-S] N. Aronszajn, A. Krzywicki and J. Szarski, *A unique continuation theorem for exterior differential forms on Riemannian manifolds*, Ark. Mat. **4** (1962), 417-453.
- [B] J. L. M. Barbosa, *An extrinsic rigidity theorem for minimal immersions from S^2 into S^n* , Differential Geometry **14**(3) (1980), 355-368.
- [B-G-G] E. Bombieri, E. DeGiorgi and E. Giusti, *Minimal cones and the Bernstein problem*, Invent. Math. **7** (1969), 243-268.
- [B-Gr-S] W. Ballman, M. Gromov and V. Schroeder, *Manifolds of nonpositive curvature*, Progress Math. **61**, Birkhauser, 1985.
- [Br] R. Bryant, *Surfaces of mean curvature one in hyperbolic space*, Astérisque **154-155** (1987), 321-347.
- [C1] E. Calabi, *Examples of Bernstein problems for some nonlinear equations*, Proc. Symp. Global Analysis U. C. Berkeley (1968).
- [C2] E. Calabi, *Improper affine hyperspheres of convex type and generalization of a theorem by K. Jörgens*, Mich. Math. J **5** (1958), 105-126.
- [C-U] I. Castro and F. Urbano, *New examples of minimal Lagrangian tori in the complex projective plane*, Manus. Math. **85** (1994), 264-281.

- [BCh] B. Y. Chen, *Geometry of submanifolds*, Marcel Dekker, New York, 1973.
- [C-D-V-VB] B. Y. Chen, F. Dillen, L. Verstraelen and L. Vrancken, *An exotic real minimal immersion of S^3 in CP^3 and its characterization*, Proc. Roal Soc. Ed. **126(A)** (1996), 153-165.
- [C-X] Q. Chen and Y. L. Xin, *A generalized maximum principle and its applications in geometry*, Amer. J. Math. **114** (1992), 355-366.
- [C-Y] S. Y. Cheng and S. T. Yau, *Maximal spacelike hypersurfaces in the Lorentz- Minkowski spaces*, Ann. Math. **104** (1976), 407-419.
- [Ch] S. S. Chern, *On the curvature of a piece of hypersurfaces in Euclidean space*, Abh. Math. Sem. Univ. Hamburg **29** (1965), 77-91.
- [Ch-H-W] S. S. Chern, P. Hartman and A. Wintner, *On isothermal coordinates*, Comment. Math. Helv. **28(4)** (1954), 301-309.
- [C-doC-K] S. S. Chern, M. do Carmo and S. Kobayashi, *Minimal submanifolds of a sphere with second fundamental form of constant length*, Functional analysis and related topics ed. F. Brower, Springer-Verlag (1970), 59-75.
- [Cho-Tr] H. In Choi and A. Treiberges, *Gauss maps of spacelike constant mean curvature hypersurfaces of Minkowski space*, J. Diff. Geom. **32** (1990), 775-817.
- [C-H-R] P. Collin, L. Hauswirth and H. Rosenberg, *The geometry of finite topology of Bryant surfaces*, Ann. Math. **153** (2001), 623-659.
- [Cr] R. Crittenden, *Minimum and conjugate points in symmetric spaces*, Canad. J. Math. **14** (1962), 320-328.
- [doC-P] M. doCarmo and C. K. Peng, *Stable complete minimal surfaces in \mathbb{R}^3 are planes*, Bull. A.M.S. **1(6)** (1979), 903-906.
- [E-L] J. Eells and L. Lemaire, *A report on harmonic maps*, Bull. London Math. Soc. **10** (1978), 1-68.
- [FC] D. Fischer-Colbrie, *Some rigidity theorems for minimal submanifolds of the sphere*, Acta math. **145** (1980), 29-46.

- [FC-S] D. Fisher-Colbrie and R. Schoen, *The structure of complete stable minimal surfaces in 3-manifolds of non-negative curvature*, Commun. Pure Appl. Math. **XXXIII** (1980), 199-211.
- [F1] W. H. Fleming, *An example in the problem of least area*, Proc. AMS **7** (1956), 1063-1074.
- [F2] W. H. Fleming, *On the oriented Plateau problem*, Circolo Mat. Palermo II (1962), 1-22.
- [Fu] L. Fu, *An analogue of Bernstein's theorem*, Houston J. Math. **24(3)** (1998), 415-419.
- [F] H. Fujimoto, *On the number of exceptional values of Gauss map of minimal surfaces*, J. Japan Math. Soc. **40(2)** (1988), 235-247.
- [G-L] M. Gromov and H. B. Lawson, *Positive scalar curvature and the Dirac operator on complete Riemannian manifolds*, IHES Publ. Math. **58** (1983), 83-196.
- [G-T] D. Gilbagerand N. Trudinger, *Elliptic partial differential equations of second order*, Springer-Verlag, 1977.
- [G-J] Gulliver, R. and Jost, J., *Harmonic maps which solve a free boundary problem*, J. Reine Angew. Math. **381** (1987), 61-89.
- [Gu-L] R. Gulliver and F. D. Lesley, *On the boundary branch points of minimizing surfaces*, Arch Rat. Mech. Anal **52** (1973), 20-25.
- [H] W. K. Hayman, *Meromorphic functions*, Oxford Math. Monograph, 1964.
- [Has] Mark Haskins, *Special Lagrangian cones*, math. DG/0005164..
- [H-L] F. R. Harvey and H. B. Lawson, *Calibrated Geometry*, Acta Math. **148** (1982), 47-157.
- [He-Ho] E. Heintze and H.Im Hof, *Geometry of horospheres*, J. Differential Geometry **12** (1977), 481-491.
- [Hi1] S. Hildebrandt, *Boundary behavior of minimal surfaces*, Arch. Rat. Mech. Anal. **35** (1969), 47-82.
- [H-J-W] S. Hildebrandt, J. Jost, J and K. O. Widman, *Harmonic mappings and minimal submanifolds*, Invent.math. **62** (1980), 269-298.

- [H] N. J. Hitchin, *The moduli space of special Lagrangian submanifolds*, Ann. Scuola Norm. Sup. Pisa Cl. Sci **25**(4) (1998), 503-515.
- [H-O-S] D. Hoffman, R. Osserman and R. Schoen, *On Gauss map of complete surfaces of constant mean curvature in \mathbb{R}^3 and \mathbb{R}^4* , Coment. Math. Helv. **57** (1982), 519-531.
- [Hö] L. Hömander, *An introduction to complex analysis in several variables*, Von Nosrad Reinhold Co., new York, 1966.
- [Is1] T. Ishihara, *Maximal spacelike submanifolds of a pseudo-riemannian space of constant curvature*, Michigan Math. J. **35** (1988), 345-352.
- [J] J. Jost, *Harmonic mappings between Riemannian manifolds*, Proc. Center for Math. Analysis, Australian Univ. Vol. 4, 1983.
- [J-X1] J. Jost and Y. L. Xin, *Bernstein type theorems for higher codimension*, Calc. Var. PDE **9** (1999), 277-296.
- [J-X2] J. Jost and Y. L. Xin, *A Bernstein theorem for special Lagrangian graph*, Calc. Var. PDE (to appear).
- [J-X3] J. Jost and Y. L. Xin, *Some aspects of the global geometry of entire space-like submanifolds*, Result Math. **40** (2001), 233-245.
- [K-W] J. Kazdan and F. Warner, *Scalar curvature and conformal deformation of Riemannian structure*, J. Differential Geometry **10** (1975), 113-134.
- [Ke] K. Kenmotsu, *Weierstrass formula for surfaces of prescribed mean curvature*, Math. Ann **245** (1979), 89-99.
- [K-N] S. Kobayashi and K. Nomizu, *Foundations of differential geometry Vol. II*, Interscience Tracts in Pure and Applied Mathematics N. 15 Vol II, Interscience Publ. John Wiley and Sons, Inc. New York, 1969.
- [L] H.B.Lawson, *Local rigidity theorems for minimal hypersurfaces*, Ann. Math. **89**(2) (1969), 187-197.
- [L1] H. B. Lawson, *Lecture on minimal submanifolds*, Publish and Perrish, Inc.. Berkley California, 1980.
- [L-O] H. B. Lawson and R. Osserman, *Non-existence, non-uniqueness and irregularity of solutions to the minimal surface system*, Acta math. **139** (1977), 1-17.

- [M] R. C. McLean, *Deformations of calibrated submanifolds*, Comm. Anal. Geom. **6** (1998), 705-747.
- [M-Y] Meeks and S. T. Yau, *Topology of three dimensional manifolds and the embedding problem in minimal surface theory*, Ann. Math. **112** (1980), 441-484.
- [Mo] J. Moser, *On Harnack's theorem for elliptic differential equations*, Comm. Pure Appl. Math. **14** (1961), 577-591.
- [Mor] C. B. Morrey, *Multiple integral in the calculus of variations*, Springer-Verlag, New York, 1966.
- [N] N. Nadirashvili, *Hadamard's and Calabi-Yau's conjectures on negative curved and minimal surfaces*, Invent. Math. **126** (1996), 457-465.
- [N-N] A. Newlander and L. Nirenberg, *Complex analytic coordinates in almost complex manifolds*, Ann. Math. **65** (1957), 391-404.
- [Ne] R. Nevanlinna, *Analytic functions* (1970), Springer - verlag, New York.
- [Ni1] J. C. C. Nitsche, *The boundary behavior of minimal surfaces. Kellogg's theorem and branch points on the boundary*, Invantiones math. **3** (1969), 313-333.
- [Ni2] J. C. C. Nitsche, *Concerning my paper on the boundary behavior of minimal surfaces*, Invetiones math. **9** (1970), 270.
- [O] R. Osserman, *Proof of a conjecture of Nirenberg*, Comm. Pure and Appl. Math. **12** (1959), 229-232.
- [O1] R. Osserman, *A proof of the regularity everywhere of the classical solution to Plateau's problem*, Ann. Math. **91** (1970), 550-569.
- [ON] B. O'Neill, *The fundamental equations of a submersion*, Michigan Math. J. **13** (1966), 459-469.
- [P] A. V. Pogorelov, *On the improper affine hypersurfaces*, Geom. Dedicata **1** (1972), 33-46.
- [P-T] C. K. Peng and C. L. Terng, *Minimal hypersurfaces of spheres with constant scalar curvature*, Seminar on minimal submanifolds ed. by E. Bombieri, Ann. Math. Study **103** (1983), 177-197.

- [Pro] M. H. Protter and H. F. Weinberger, *Maximum principles in differential equations*, Prentice-Hall, Englewood Cliffs, N.J., 1967.
- [R] R. Reilly, *Extrinsic rigidity theorems for compact submanifolds of the sphere*, J. Diff. Geom. **4** (1970), 487-497.
- [R-V] E. A. Ruh and J. Vilms, *The tension field of the Gauss map*, Trans. A. M. S. **149** (1970), 569-573.
- [Sc] R. Schoen, *A remark on minimal hypercones*, Proc. Nat. Acad. Sci. U.S.A. **79** (1982), 4523-4524.
- [S-S-Y] R. Schoen, L. Simon and S. T. Yau, *Curvature estimates for minimal hypersurfaces*, Acta Math. **134** (1975), 275-288.
- [Sh] Ying Shen, *A Liouville theorem for harmonic maps*, Amer. J. Math. **117**(3) (1995), 773-785.
- [Si] J. Simons, *Minimal varieties in Riemannian manifolds*, Ann. Math. **88** (1968), 62-105.
- [Sm] S. Smale, *On the Morse index theorem*, J. Math. Mech. **14** (1965), 1049-1056.
- [So] B. Solomon, *On the Gauss map of an area-minimizing hypersurface*, J. Differential Geom. **19** (1984), 221-232.
- [Spi] M. Spivak, *A comprehensive introduction to differential geometry*, Publish or Perish Inc, 1979.
- [T] T. Takahashi, *Minimal immersions of Riemannian manifolds*, J. Math. Soc. Japan **18** (1966), 380-385.
- [Tr] A. E. Treibergs, *Entire spacelike hypersurfaces of constant mean curvature in Minkowski 3-space*, Invent. Math. **66** (1982), 39-56.
- [U-Y] M. Umehara and K. Yamada, *Complete surfaces of constant mean curvature-1 in the hyperbolic 3-space*, Ann. of Math. **137** (1993), 611-638.
- [U-Y1] M. Umehara and K. Yamada, *A duality on CMC-1 surface in hyperbolic 3-space and a hyperboloc analogue of the Osserman inequality*, Tsukuba J. Math. **21** (1997), 229-237.
- [W1] Wong, Yung-Chow, *Differential geometry of Grassmann manifolds*, Proc. N.A.S. **57** (1967), 589-594.
- [W2] Wong, Yung-Chow Wong, *Euclidean n-planes in pseudo-Euclidean spaces and differential geometry of Cartan domain*, Bull. A. M. S. **75** (1969), 409-414.

- [W] Hung-Hsi Wu, *The Bochner technique in differential geometry*, Math. Report V3, Harwood Academic Publisher, 1988, pp. 289-538.
- [W-S-Y] H. H. Wu, C. L. Shen and Y. L. Yu, *Essential Riemannian geometry (in Chinese)*, Beijing Univ. Press, 1989.
- [Xa] F. Xavier, *The Gauss map of a complete non-flat minimal surface cannot omit 7 points of the sphere*, Ann. Math. (Ann. Math.) **115** (1982) p. 667 for corrections) **113** (1981), 211-214.
- [X1] Y. L. Xin, *On the Gauss image of a spacelike hypersurfaces with constant mean curvature in Minkowski space*, Comment. Math. Helv. **66** (1991), 590-598.
- [X2] Y. L. Xin, *A rigidity theorem for a space-like graph of higher codimension*, Manuscripta Math. **103**(2) (2000), 191-202.
- [X3] Xin, Y. L., *Geometry of harmonic maps*, Birkhäuser PNLDE **23**, 1996.
- [X-Y] Y. L. Xin and Rugang Ye, *Bernstein-type theorem for spacelike surfaces with parallel mean curvature*, J. reine angew. Math. **489** (1997), 189-198.
- [Y] S. T. Yau, *Harmonic functions on complete Riemannian manifolds*, Commun. Pure Appl. Math. **28** (1975), 201-228.
- [Y1] S. T. Yau, *Some function theoretic properties of complete Riemannian manifolds and their applications to geometry*, Indiana Univ. Math. J. **25**(7) (1976), 659-670.
- [Y2] S. T. Yau(ed.), *Seminar on differential geometry*, Ann. Math. Study 102 Princeton Univ. Press, 1982.
- [Yu] Zu-Huan Yu, *The value distribution of the hyperbolic Gauss map*, Proc. A. M. S. **125**(10) (1997), 2997-3001.
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- [Pro] M. H. Protter and H. F. Weinberger, *Maximum principles in differential equations*, Prentice-Hall, Englewood Cliffs, N.J., 1967.
- [R] R. Reilly, *Extrinsic rigidity theorems for compact submanifolds of the sphere*, J. Diff. Geom. **4** (1970), 487-497.
- [R-V] E. A. Ruh and J. Vilms, *The tension field of the Gauss map*, Trans. A. M. S. **149** (1970), 569-573.
- [Sc] R. Schoen, *A remark on minimal hypercones*, Proc. Nat. Acad. Sci. U.S.A. **79** (1982), 4523-4524.
- [S-S-Y] R. Schoen, L. Simon and S. T. Yau, *Curvature estimates for minimal hypersurfaces*, Acta Math. **134** (1975), 275-288.
- [Sh] Ying Shen, *A Liouville theorem for harmonic maps*, Amer. J. Math. **117**(3) (1995), 773-785.
- [Si] J. Simons, *Minimal varieties in Riemannian manifolds*, Ann. Math. **88** (1968), 62-105.
- [Sm] S. Smale, *On the Morse index theorem*, J. Math. Mech. **14** (1965), 1049-1056.
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- [T] T. Takahashi, *Minimal immersions of Riemannian manifolds*, J. Math. Soc. Japan **18** (1966), 380-385.
- [Tr] A. E. Treibergs, *Entire spacelike hypersurfaces of constant mean curvature in Minkowski 3-space*, Invent. Math. **66** (1982), 39-56.
- [U-Y] M. Umehara and K. Yamada, *Complete surfaces of constant mean curvature-1 in the hyperbolic 3-space*, Ann. of Math. **137** (1993), 611-638.
- [U-Y1] M. Umehara and K. Yamada, *A duality on CMC-1 surface in hyperbolic 3-space and a hyperboloc analogue of the Osserman inequality*, Tsukuba J. Math. **21** (1997), 229-237.
- [W1] Wong, Yung-Chow, *Differential geometry of Grassmann manifolds*, Proc. N.A.S. **57** (1967), 589-594.
- [W2] Wong, Yung-Chow, *Euclidean n-planes in pseudo-Euclidean spaces and differential geometry of Cartan domain*, Bull. A. M. S. **75** (1969), 409-414.

REFERENCES

Hung-Hsi Wu, *The Bochner technique in differential geometry*, Math. Report V3, Harwood Academic Publisher, 1988, pp. 289-538.

- [W-S-Y] H. H. Wu, C. L. Shen and Y. L. Yu, *Essential Riemannian geometry (in Chinese)*, Beijing Univ. Press, 1989.
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- [X2] Y. L. Xin, *A rigidity therem for a space-like graph of higher codimension*, Manuscripta Math. **103**(2) (2000), 191-202.
- [X3] Xin, Y. L., *Geometry of harmonic maps*, Birkhäuser PNLDE **23**, 1996.

- [X-Y] Y. L. Xin and Rugang Ye, *Bernstein-type theorem for spacelike surfaces with parallel mean curvature*, J. reine angew. Math. **489** (1997), 189-198.
- [Y] S. T. Yau, *Harmonic functions on complete Riemannian manifolds*, Commun. Pure Appl. Math. **28** (1975), 201-228.
- [Y1] S. T. Yau, *Some function theoretic properties of complete Riemannian manifolds and their applications to geometry*, Indiana Univ. Math. J. **25**(7) (1976), 659-670.
- [Y2] S. T. Yau(ed.), *Seminar on differential geometry*, Ann. Math. Study **102** Princeton Univ. Press, 1982.
- [Yu] Zu-Huan Yu, *The value distribution of the hyperbolic Gauss map*, Proc. A. M. S. **125**(10) (1997), 2997-3001.

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