

List of Papers (Yoshihiro OHNITA)

Papers & Articles

- [1] Y. Kitagawa and Y. Ohnita, *On the mean curvature of R -spaces*, Math. Ann. 262 (1983), 239-243.
- [2] Y. Ohnita, *The degrees of the standard imbeddings of R -spaces*, Tohoku Math. J. 35 (1983), 499-502.
- [3] H. Muto, Y. Ohnita and H. Urakawa, *Homogeneous minimal hypersurfaces in the unit spheres and the first eigenvalues of their Laplacian*, Tohoku Math. J. 36 (1984), 243-267.
- [4] Y. Ohnita, *The first standard minimal immersions of compact irreducible symmetric spaces*, Differential Geometry of Submanifolds, Lecture Notes in Mathematics 1090, Springer-Verlag, 1984, 37-49.
- [5] Y. Ohnita, *Stable minimal submanifolds in compact rank one symmetric spaces*, Tohoku Math. J. 36 (1986), 199-217.
- [6] Y. Ohnita, *Stability of harmonic maps and standard minimal immersions*, Tohoku Math. J. 38 (1986), 259-267.
- [7] Y. Ohnita and H. Tasaki, *Uniqueness of certain 3-dimensional homologically volume minimizing submanifolds in compact simple Lie groups*, Tsukuba J. Math. 10 (1986), 11-16.
- [8] Y. Ohnita, *Totally real submanifolds with nonnegative sectional curvature*, Proc. Amer. Math. Soc. 97 (1986), 474-478.
- [9] S. Kobayashi, Y. Ohnita and M. Takeuchi, *On instability of Yang-Mills connections*, Math. Z. 193 (1986), 165-189.
- [10] S. Bando and Y. Ohnita, *Minimal 2-spheres with constant curvature in $P_n(C)$* , J. Math. Soc. Japan 39 (1987), 477-487.
- [11] Y. Ohnita, *On pluriharmonicity of stable harmonic maps*, J. London Math. Soc. (2) 35 (1987), 563-568.
- [12] Y. Ohnita, *On stability of minimal submanifolds in compact symmetric spaces*, Compositio Math. 64 (1987), 157-189.
- [13] Y. Ohnita and S. Udagawa, *Stable harmonic maps from Riemann surfaces to compact Hermitian symmetric spaces*, Tokyo J. Math. 10 (1987), 385-390.
- [14] Y. Ohnita, *Minimal surfaces with constant curvature and Kaehler angle in complex space forms*, Tsukuba J. Math. 13 (1989), 191-207.

- [15] S. Maeda and Y. Ohnita, *Helical geodesic immersions into complex space forms*, *Geom. Dedicata* 30 (1989), 93-114.
- [16] Y. Ohnita and S. Udagawa, *Stability, complex-analyticity and constancy of pluriharmonic maps from compact Kaehler manifolds*, *Math. Z.* 205 (1990), 629-644.
- [17] Y. Ohnita, *Homogeneous harmonic maps into complex projective spaces*, *Tokyo J. Math.* 13 (1990), 87-116.
- [18] Y. Ohnita and G. Valli, *Pluriharmonic maps into compact Lie groups and factorization into unitons*, *Proc. London Math. Soc.* (3) 61 (1990), 546-570.
- [19] Y. Ohnita and Y.-L. Pan, *On weakly stable Yang-Mills fields over positively pinched manifolds and certain symmetric spaces*, *Kodai Math. J.* 13 (1990), 317-332. (MPI preprint/89-49.)
- [20] Y. Ohnita and S. Udagawa, *Complex-analyticity of pluriharmonic maps and their constructions*, In: *Prospects in Complex Geometry*, proceedings of the 25th Taniguchi International Symposium held in Katata and the Conference held in Kyoto, July 31-August 9, 1989. *Lecture Notes in Math.* 1468, Springer-Verlag, 1991, 371-407.
- [21] M. A. Guest and Y. Ohnita, *Group actions and deformations for harmonic maps*, *J. Math. Soc. Japan* 45 (1993), 671-704.
- [22] M. Furuta, M. A. Guest, M. Kotani and Y. Ohnita, *On the fundamental group of the space of harmonic 2-spheres in the n -sphere*, *Math. Z.* 215 (1994), 503-518.
- [23] S. Maeda, Y. Ohnita and S. Udagawa, *On slant immersions into Kaehler manifolds*, *Kodai Math. J.* 16 (1993), 205-219.
- [24] M. A. Guest and Y. Ohnita, *Loop group actions on harmonic maps and their applications*, in : *Harmonic Maps and Integrable Systems*, edited by A.P. Fordy and J.C.Wood, *Aspects of Mathematics E23*, Vieweg, Braunschweig/Wiesbaden, 1994, 273-292.
- [25] Y. Ohnita, *Group actions and deformations for harmonic maps into symmetric spaces*, *Kodai Math. J.* 17 (1994), 463-475.
- [26] M. A. Guest and Y. Ohnita, **ループ群の作用と調和写像の変形およびその応用**, *数学* 46 (1994), 228-242 (in Japanese).
- [27] Y. Ohnita: *Toda equations and harmonic maps*, *非線型可積分系の研究の現状と展望* (State of the art and perspectives in studies on nonlinear integrable systems) (Japanese) (Kyoto, 1993). *数理解析研究所講究録* No.

868 (1994), 66–73.

[28] M. A. Guest and Y. Ohnita, *Actions of loop groups, deformations of harmonic maps, and their applications*, (as English translation for the revised version of 26). In : “Selected Papers on Harmonic Analysis, Groups and Invariants ”, Amer. Math. Soc. Translations Ser. 2, Vol 183 (1998), (K.Nomizu, editor), 33-50.

[29] Y. Nishimori and Y. Ohnita: *Quantum cohomology ring for Hermitian symmetric spaces of type DIII*, Topics in applied and theoretical mathematics and computer science, 232–237, Math. Comput. Sci. Eng., WSEAS, Athens, 2001.

[30] M. Mukai and Y. Ohnita: *Gauge-theoretic equations for harmonic maps into symmetric spaces*. In : The Third Pacific Rim Geometry Conference, held in Seoul, Dec, 1996, edited by J. Choe, 1998, International Press, 195–209.

[31] Y. Ohnita: *Gauge-theoretic equations for symmetric spaces and certain minimal submanifolds in moduli spaces*. In Harmonic Morphisms, Harmonic Maps and Related Topics, edited by C. K. Anand, P. Baird, E. Loubeau, and J. Wood, 2000, Research Notes in Math.413, Chapman & Hall/CRC, 193–209.

[32] M. Mukai-Hidano and Y. Ohnita: *Geometry of the moduli spaces of harmonic maps into Lie groups via gauge theory over Riemann surfaces*, International J. Math. 12, no. 3 (2001), 339–371.

[33] M. Mukai-Hidano and Y. Ohnita: *Gauge-theoretic approach to harmonic maps and subspaces in moduli spaces*, “Integrable systems, Geometry and Topology”, AMS/IP Studies in Advanced Mathematics, Volume 36, 2006, edited by C.-L.Terng, American Mathematical Society/International Press, 191–234.

[34] Y. Ohnita and S. Udagawa: *Harmonic maps of finite type into generalized flag manifolds and twistor fibrations*, Contemporary Mathematics 308 (2002), Differential Geometry and Integrable Systems, (the proceedings of the 9-th MSJ-IRI Tokyo 2000, Integrable Systems in Differential Geometry), edited by M. Guest, R. Miyaoka, Y. Ohnita, American Mathematical Society, 245–270.

[35] A. Amarzaya and Y. Ohnita: *Hamiltonian stability of certain minimal Lagrangian submanifolds in complex projective spaces*, Tohoku Math. J. 55 (2003), 583-610.

[36] Y. Ohnita: *Harmonic Maps into Symmetric Spaces and Integrable Sys-*

tem Theory, Sophia Kokyuroku in Mathematics 45, Theory of Lie Groups and Manifolds, edited by R. Miyaoka and H. Tamaru, Nov.2002, Department of Mathematics, Sophia University, 77-93.

[37] A. Amarzaya and Y. Ohnita: *On Hamiltonian stability of certain H-minimal Lagrangian submanifolds in Hermitian symmetric spaces*, 数理解析研究所講究録 1236, "Geometry of submanifolds and related topics" (Nov.,2001), 31-48. TMU Math. Preprint Ser. no.5, 2002.

[38] A. Amarzaya and Y. Ohnita: *Hamiltonian stability of certain H-minimal Lagrangian submanifolds and related problems*, 数理解析研究所講究録 1292, "General study on Riemannian submanifolds", 72-93 TMU Math. Preprint Ser. no.23, 2002.

[39] Y. Ohnita: *Stability and Rigidity of Certain Special Lagrangian Cones*, 数理解析研究所講究録 1460, "Differential Geometry and Submanifolds", 43-52 (in English).

[40] Y. Ohnita: *Hamiltonian stability of parallel Lagrangian submanifolds in complex space forms*, In Report of the Fukuoka University Geometry meeting celebrating the sixtieth birthday of Professor Yoshihiko Suyama, "Geometry and Something" 2005.10.7-10, Fukuoka. <http://www.sci.osaka-cu.ac.jp/~ohnita/paper/Fukuoka05repC.pdf>

[41] Y. Ohnita: *Stability and rigidity of special Lagrangian cones over certain minimal Legendrian orbits*, Osaka J. Math. 44 no.2 (2007), 305-334.

[42] 大仁田義裕, 乙藤隆史, 宇田川誠一: *Moduli spaces of complex Fermi curves and the Willmore functional*, Surikaisekikenkyusho Kokyuroku 1527, "For Further Advance of the Submanifold Theory" (July, 2006), 100-127 (和文).

[43] H. Ma and Y. Ohnita: *On Lagrangian submanifolds in complex hyperquadrics and isoparametric hypersurfaces in spheres*, Math. Z. 261 (2009), 749-785. (Published online: 4 April 2008, DOI 10.1007/s00209-008-0350-5.) arXiv:0705.0694v2 [math.DG].

[44] Y. Ohnita: *Willmore conjecture and integrable systems (after M.U.Schmidt, I.A.Taimanov etc.)*, 数理解析研究所講究録 1577, "Submanifold Theory related to the Integrable Systems and Geometry Analysis" (July, 2007), January 2008, 117-125 (in Japanese).

[45] A. Amarzaya and Y. Ohnita: *Hamiltonian stability of parallel Lagrangian submanifolds in complex space forms*, a preprint 2008, revised version of 38. <http://www.sci.osaka-cu.ac.jp/~ohnita/paper/Amar-Ohnita08.pdf>

- [46] Y. Ohnita: *Differential geometry of Lagrangian submanifolds and related variational problems*, Proceedings of The Twelfth International Workshop on Differential Geometry and Related Fields, 12 (2008), 91-114, ed. by Y.-J. Suh, J. D. Pérez, Y.-S. Choi, Korean Math. Soc. and Research Group in Real and Complex Grassmann Manifolds. OCAMI Preprint Ser. no.08-2.
- [47] Y. Ohnita: *On Lagrangian submanifolds in complex hyperquadrics obtained from isoparametric hypersurfaces*, 数理解析研究所講究録 1623, "Differential Geometry of Submanifolds and Related Topics" (June 23-June 25, 2008), January 2009, 111-125. OCAMI Preprint Ser. no.08-13.
- [48] Y. Ohnita: *On deformation of 3-dimensional certain minimal Legendrian submanifolds*, Proceedings of The Thirteenth International Workshop on Differential Geometry and Related Fields, 13 (2009), 71-87, ed. by Y.-J. Suh, J. Berndt, Y.-S. Choi, National Institute for Mathematical Sciences, The Korean Mathematical Society and Grassmann Research Group. OCAMI Preprint Ser. no.09-16.
- [49] H. Ma and Y. Ohnita: *Differential geometry of Lagrangian submanifolds and Hamiltonian variational problems*, in Harmonic Maps and Differential Geometry, Contemporary Mathematics, vol. 542, Amer. Math. Soc. Providence, RI, 2011, pp.115-134. OCAMI Preprint Ser. no.10-3.
- [50] Y. Ohnita: *Harmonic Maps of Surfaces and Integrable System Approach (a survey)*, 数理解析研究所講究録 1720, 「調和写像の深化と展望 (The Progress and View of Harmonic Map Theory)」(2010年6月2日～6月4日) RIMS 研究集会報告集, 2010年11月, pp1-27. OCAMI Preprint Ser. no.10-8.
- [51] Y. Ohnita: *Geometry of Lagrangian Submanifolds and Isoparametric Hypersurfaces*, Proceedings of The Fourteenth International Workshop on Differential Geometry and Related Fields, 14 (2010), pp43-67, ed. by Y.-J. Suh, National Institute for Mathematical Sciences, The Korean Mathematical Society and Grassmann Research Group. OCAMI Preprint Ser. no.10-9.
- [52] 大仁田義裕: *ラグランジュ部分多様体と等径超曲面の幾何学 (解説と展望)*, (和文), 数理解析研究所講究録 1775, 「部分多様体の微分幾何学的研究 (Differential Geometry of Submanifolds)」(2011年6月27日～6月29日, 研究代表者 藤森 祥一) RIMS 研究集会報告集, 2012年1月, pp1 - 24. OCAMI Preprint Ser. no.11-16.
- [53] Y. Ohnita: *Certain Lagrangian submanifolds in Hermitian symmetric spaces and Hamiltonian stability problems*, Proceedings of The Fifteenth

International Workshop on Differential Geometry, 15 (2011), pp209-234, ed. by Y.-J. Suh, National Institute for Mathematical Sciences, The Korean Mathematical Society and Grassmann Research Group.

[54] Y. Ohnita: *Certain compact homogeneous Lagrangian submanifolds in Hermitian symmetric spaces*, Proceedings of The Sixteenth International Workshop on Differential Geometry and Related Fields, 16 (2012), pp.225-240, ed. by Y.-J. Suh, J. Berndt and H. Lee, National Institute for Mathematical Sciences and Grassmann Research Group.

[55] Y. Ohnita: *On intersections of the Gauss images of isoparametric hypersurfaces*, Proceedings of The Seventeenth International Workshop on Differential Geometry and Related Fields, 17 (2013), pp.201-213, ed. by Y.-J. Suh, J. Berndt and H. Lee, National Institute for Mathematical Sciences and Grassmann Research Group.

[56] Y. Ohnita: *Geometry of Certain Lagrangian Submanifolds in Hermitian Symmetric Spaces*, "Differential Geometry of Submanifolds and its Related Topics", Proceedings of the International Workshop in Honor of S. Maeda's 60th Birthday, edited by S. Maeda, Y. Ohnita, Q.-M. Cheng, World Scientific Publishing Co. Pte. Ltd., 2014, pp.60-81.

[57] Y. Ohnita: *Geometry of Lagrangian submanifolds related to isoparametric hypersurfaces*, In: "Real and Complex Submanifolds", Daejeon, Korea, August 2014. Editors: Young Jin Suh, Juergen Berndt, Yoshihiro Ohnita, Byung Hak Kim, Hyunjin Lee, Springer Proceedings in Mathematics and Statistics 106, pp.117-127, Springer Japan 2014.

[58] H. Ma and Y. Ohnita: *Hamiltonian stability of the Gauss images of homogeneous isoparametric hypersurfaces, I*, J. Differential Geom. 97 (2014), 275-348.

[59] H. Ma and Y. Ohnita: *Hamiltonian stability of the Gauss images of homogeneous isoparametric hypersurfaces, II*, Tohoku Math. J. 67, No.2 (2015), 195-246 (June, 2015).

[60] Y. Ohnita: *Geometry of Lagrangian submanifolds in complex hyperquadrics and the Gauss images of isoparametric hypersurfaces*, Proceedings of The Nineteenth International Workshop on Hermitian-Grassmannian Submanifolds and Its Applications, 19 (2015) 283-307, ed. by Young Jin Suh and Hyunjin Lee, NIMS and RIRCM.

[61] H. Iriyeh, H. Ma, R. Miyaoka and Y. Ohnita: *Hamiltonian non-displaceability of Gauss images of isoparametric hypersurfaces*, Bull. London Math. Soc. (2016) 48 (5): 802-812. (a preprint, arXiv: 1510.05057v1

[math.DG] 17 Oct.2015.)

[62] Y. Ohnita: *On Floer homology of the Gauss images of isoparametric hypersurfaces*, In: “Hermitian-Grassmannian Submanifolds”, Daegu, Korea, July 2016. Editors: Young Jin Suh, Yoshihiro Ohnita, Jiazuo Zhou, Byung Hak Kim, Hyunjin Lee, Springer Proceedings in Mathematics & Statistics, 203, pp.235–247. Springer.

[63] Y. Ohnita: *On classification of minimal orbits of the Hermann action satisfying Koike’s conditions (Joint work with Minoru Yoshida)*, Proceedings of the 21st International Workshop on Hermitian Symmetric Spaces and Submanifolds and 14th RIRCM-OCAMI Joint Differential Geometry Workshop, 21 (2017), pp.1-15.

[64] R. Miyaoka and Y. Ohnita: *Lagrangian geometry of the Gauss images of isoparametric hypersurfaces in spheres*, Complex Manifolds 2019; 6:265-278. <https://doi.org/10.1515/coma-2019-0013>

[65] Y. Ohnita: *Minimal Maslov number of R-spaces canonically embedded in Einstein-Kähler C-spaces*, Complex Manifolds 2019; 6:303-319. <https://doi.org/10.1515/coma-2019-0016>

[66] Y. Ohnita: *Geometry of R-spaces canonically embedded in Kähler C-spaces as Lagrangian submanifolds*, Proceedings of the 22nd International Workshop on Differential Geometry of Submanifolds in Symmetric Spaces and Related Problems and 17th RIRCM-OCAMI Joint Differential Geometry Workshop, 22 (2019), pp.115-132.

[67] Y. Ohnita: *Parallel Kähler submanifolds and R-spaces*, Differential Geometry and Global Analysis: In Honor of Tadashi Nagano, Contemporary Mathematics **777** (2022), 163–184.

[68] Y. Ohnita: *Canonical connections of a Sasakian manifold and invariant submanifolds with parallel second fundamental form*, Proceedings of The 23rd International Differential Geometry Workshop on Submanifolds in Homogeneous Spaces and Related Topics **23** (2021), 31–40, Edited by Young Jin Suh, Yoshihiro Ohnita, Changhwa Woo, Hiroshi Tamaru and Hyunjin Lee, KNU, RIRCM, OCAMI, NRF, JSPS, Pukyong Univ.

Preprints etc,

(1) M. A. Guest, M. Mukai and Y. Ohnita, *On the topology of spaces of harmonic 2-spheres in symmetric spaces*, a preprint.

(2) Y. Ohnita and M. Yoshida: *Classification of minimal Koike’s orbits under the Hermann actions on compact symmetric spaces*, in preparation.

(3) J.-T. Cho, K. Hashimoto and Y. Ohnita: *Totally complex submanifolds and R-spaces*, in preparation.