

論文リスト

- [1] Hideki Omori, Yoshiaki Maeda, Akira Yoshioka and Osamu Kobayashi, “On regular Fréchet-Lie groups III, A second cohomology class related to the Lie algebra of pseudo differential operators of order one”, *Tokyo J. Math.* 4 (1981), no. 2, 255–277.
- [2] Osamu Kobayashi and Morio Obata, “Certain mathematical problems on static models in general relativity”, *Proceedings of the 1980 Beijing Symposium on Differential Geometry and Differential Equations*, Vol. 1, 2, 3 (Beijing, 1980), 1333–1343, Science Press, Beijing, 1982.
- [3] Hideki Omori, Yoshiaki Maeda, Akira Yoshioka and Osamu Kobayashi, “On regular Fréchet-Lie groups IV. Definition and fundamental theorems”, *Tokyo J. Math.* 5 (1982), no. 2, 365–398.
- [4] Osamu Kobayashi and Morio Obata, “Conformally-flatness and static spacetime”, *Manifolds and Lie groups* (Notre Dame, Ind., 1980), pp. 197–206, *Progr. Math.*, 14, Birkhauser, Boston, Mass., 1981.
- [5] Hideki Omori, Yoshiaki Maeda, Akira Yoshioka and Osamu Kobayashi, “On regular Fréchet-Lie groups V. Several basic properties”, *Tokyo J. Math.* 6 (1983), no. 1, 39–64.
- [6] Osamu Kobayashi, “A differential equation arising from scalar curvature function”, *J. Math. Soc. Japan* 34 (1982), no. 4, 665–675.
- [7] Hideki Omori, Yoshiaki Maeda, Akira Yoshioka and Osamu Kobayashi, “On regular Fréchet-Lie groups VI. Infinite-dimensional Lie groups which appear in general relativity”, *Tokyo J. Math.* 6 (1983), no. 2, 217–246
- [8] Akira Yoshioka, Yoshiaki Maeda, Hideki Omori and Osamu Kobayashi, “On regular Fréchet-Lie groups VII. The group generated by pseudodifferential operators of negative order”, *Tokyo J. Math.* 7 (1984), no. 2, 315–336
- [9] Osamu Kobayashi, “Complements to surveys in geometry (1981/1982) (Japanese)” *Sūgaku* 35 (1983), no. 1, 78–82.
- [10] Osamu Kobayashi, “Maximal surfaces in the 3-dimensional Minkowski space L^3 ”, *Tokyo J. Math.* 6 (1983), no. 2, 297–309.
- [11] Yoshiaki Maeda, Hideki Omori, Osamu Kobayashi and Akira Yoshioka, “On regular Fréchet-Lie groups VIII. *Tokyo J. Math.* 8 (1985), no. 1, 1–47.
- [12] Osamu Kobayashi, Akira Yoshioka, Yoshiaki Maeda and Hideki Omori, “The theory of infinite-dimensional Lie groups and its applications”, *Acta Appl. Math.* 3 (1985), no. 1, 71–106.
- [13] Osamu Kobayashi, “Maximal surfaces with conelike singularities”, *J. Math. Soc. Japan* 36 (1984), no. 4, 609–617.
- [14] Osamu Kobayashi, “On a conformally invariant functional of the space of Riemannian metrics”, *J. Math. Soc. Japan* 37 (1985), no. 3, 373–389.
- [15] Osamu Kobayashi, “A Willmore type problem for $S^2 \times S^2$ ”, *Differential geometry and differential equations* (Shanghai, 1985), 67–72, *Lecture Notes in Math.*, 1255, Springer, Berlin, 1987.
- [16] Osamu Kobayashi, “Scalar curvature of a metric with unit volume”, *Math. Ann.* 279 (1987), no. 2, 253–265.
- [17] Osamu Kobayashi, “Scalar curvature of spheres”, *Math. Z.* 200 (1989), no. 2, 273–277.

- [18] O. Kobayashi and T. Gomikawa, Complete Metrics of Negative Ricci Curvature, *J. Math. Soc. Japan*, **43** (1991), 432–435.
- [19] Osamu Kobayashi, “Yamabe metrics and conformal transformations”, *Tohoku Math. J. (2)* 44 (1992), no. 2, 251–258.
- [20] Osamu Kobayashi and Masaaki Umehara, “Geometry of scrolls”, *Osaka J. Math.* 33 (1996), no. 2, 441–473.
- [21] Hitoe Tanio and Osamu Kobayashi, “Rotation numbers for curves on a torus”, *Geom. Dedicata* 61 (1996), no. 1, 1–9.
- [22] Osamu Kobayashi, “Vertices of curves with complementary shells”, *Kobe J. Math.* 15 (1998), no. 1, 59–65.
- [23] Masaaki Wada and Osamu Kobayashi, “The Schwarzian and Möbius transformations in higher dimensions”, Clifford algebras and their applications in mathematical physics, Vol. 2 (Ixtapa, 1999), 239–246, *Progr. Phys.*, 19, Birkhauser Boston, Boston.
- [24] Osamu Kobayashi and Masaaki Wada, “Circular geometry and the Schwarzian”, *Far East J. Math. Sci. (FJMS)* 2000, Special Volume, Part III, 335–363.
- [25] Kazuo Akutagawa, Boris Botvinnik, Osamu Kobayashi, Harish Seshadri, “The Weyl functional near the Yamabe invariant”, *J. Geom. Anal.* 13(2003), 1–20.
- [26] Osamu Kobayashi, “A variational problem for affine connections”, *Arch. Math.* 86 (2006), 464–469.
- [27] Osamu Kobayashi, “Projective Structures of a Curve in a Conformal Space”, *From Geometry to Quantum Mechanics*, pp. 47–51, *Progr. Math.* 252, Birkhauser, 2007.
- [28] Osamu Kobayashi, “Apollonius Points and Anharmonic ratio”, *Tokyo J. Math.* 30 (2007), 117–119.
- [29] Osamu Kobayashi, “Ricci curvature of affine connections”, *Tohoku Math. J.* 60 (2008), 357–364.
- [30] Osamu Kobayashi, “Injectivity property of regular curves and a sphere theorem”, *Differential geometry of submanifolds and its related topics 16–18*, World Scientific 2013.
- [31] Osamu Kobayashi, “The conformal rotation number”, *Kodai Math. J.* 38 (2015), 166–171.

著書

- [b1] 小林 治, 井関裕靖, “山辺の問題について”, *Seminar on Mathematical Sciences*, 16. Keio University, Department of Mathematics, Yokohama, 1990. ii+93 pp.
- [b2] 小林 治, 芥川和雄, 井関裕靖, “山辺の問題”, *数学メモアール* 7 (2013), 75 pp. 日本数学会

その他

- [c1] Osamu Kobayashi, “On Large Scalar Curvature”, *Research Report-85/011*, Dept. of Math., Fac. of Sci. Tech., Keio Univ. (1985) 10 pp.
- [c2] 小林 治, “日常生活からの微分幾何”, *数理科学* 318 (1989), 9–12.
- [c3] Osamu Kobayashi, “Critical Values of the Yamabe Functional”, (Kyoto 1989), *数理解析研究所講究録 No. 738* (1991), 31–35.

- [c4] 小林 治, “山辺の問題”, 数学セミナー 9 (2004), 24–27
- [c5] 小林 治, “未解決問題集 75–86”, 21 世紀の数学 (宮岡・小谷編), 日本評論社, 2004, 392–393
- [c6] 小林 治, “山辺の問題”, 数学セミナー増刊 (2007), 32–35
- [c7] 小林 治, “Hirzebruch 先生を偲んで”, 数学通信 17-2 (2012), 50–52.
- [c8] 小林 治, “多様体上の微積分”, 数理科学 614 (2014), 21–27
- [c9] 小林 治, “幾何学的方法と解析学的方法”, 数理科学 628 (2015), 7–13
- [c10] 小林 治, “ワイルと微分幾何”, 数理科学 640 (2016), 30–35

準備中

- [p1] Osamu Kobayashi “Conformal length through Laguerre geometry,” Geometric Analysis in Geometry and Topology 2015. <http://www.rs.kagu.tus.ac.jp/~koike/GAGT2015-Kobayashi.pdf> の正規版
- [p2] 小林 治, “リーマン幾何量に現れる次元依存”, 数理科学 656 (2018)
- [p3] 小林 治, 幾何学百科第 2 章, 朝倉書店
- [p4] 小林 治, “多様体上の解析学入門” (仮題), サイエンス社
- [p5] 小林 治, “Weyl のゲージ理論, Schwarz 微分, そしてある球面定理”, 2017 年山形大学における学会幾何学分科会講演アブストラクト, の正規版