

令和 2 年度 院生の業績
(論文と口頭発表)

(小川 智史)

• 論文(査読なし)

Satoshi Ogawa "CR-functions of suspension foliations and Dynamical systems", Abstracts of The 27th Osaka City University International Academic Symposium, Osaka City University.

• 口頭発表

- [1]小川 智史 "Bryuno 数と Yoccoz のくりこみ", 多変数関数論若手オンライン勉強会, 大阪市立大学(オンライン開催) 2020.12.02, 2020.12.04
[2]小川 智史 "CR 関数と円周の微分同相写像の力学系", 第 4 回数理新人セミナー, オンライン開催 2021.02.14
[3]Satoshi Ogawa "CR-function of suspension foliations and Dynamical systems", The 27th Osaka City University International Academic Symposium, Osaka City University & Zoom 2021.03.23

(甲斐 大貴)

• 論文

[1] Hiroataka Kai and Atsushi Takeuchi. (2020) Gradient formulas for jump processes on manifolds. Electronic Journal of Probability. EJP2007-014 投稿中

• 研究発表

- [1] 確率論ヤングサマーセミナー 講演日 2020年9月9日 講演者 甲斐 大貴
講演タイトル リーマン多様体上のジャンプ過程
[2] 確率論とその周辺 講演日 2020年11月25日 講演者 甲斐 大貴
講演タイトル リーマン多様体上のジャンプ過程
[3] 研究連絡会 講演日 2021年3月5日 講演者 甲斐 大貴
講演タイトル 時間依存計量を持つリーマン多様体上の確率過程と部分積分公式

• 準備中

- [1]時間依存計量を持つ多様体上のジャンプ過程とそれに対する部分積分公式の導出

(佐藤 真子)

• プロシーディング(査読あり)

Mako Sato, Yasuhide Fukumoto, Influence of an oblique magnetic field on planar flame front instability, 2019-20 MATRIX Annals, Springer, P439-459.

• 口頭発表

Beltrami Fields with a non-constant proportionality factor,
第 27 回大阪市立大学国際学術シンポジウム「可視化の数理と、対称性およびモジュライの深化」、2021 年 3 月 21 日(日) -26 日(金) 大阪市立大学杉本キャンパス&オンライン併用。

(Excellent Presentation 賞受賞)

(高溝 史周)

• 論文

[1] M.Yoshida and F.Takamizo, Finite β -expansion and odometer, 投稿中

[2] F.Takamizo and M.Yoshida, Some class of cubic Pisot number with finiteness property, 投稿中

• □頭発表

[1] Finite β -expansion and odometer, 北海道 web 力学系セミナー, June 30, 2020.

(武中 亮)

• 論文 (査読無し)

[1] R. Takenaka, Parafermionic bases of standard modules for twisted affine Lie algebras, Abstracts of The 27th Osaka City University International Academic Symposium.

• □頭発表

[1] R. Takenaka, Parafermionic bases of standard modules for twisted affine Lie algebras, Osaka City University, The 27th Osaka City University International Academic symposium, March 23, 2021.

(谷口 雄大)

• 論文

(査読有り)

[1] Y. Taniguchi, “Quandle coloring quivers of links using dihedral quandles”, to appear in Journal of Knot Theory and Its Ramifications.

(査読無し)

[1] 谷口雄大, “ f-twisted Alexander matrix と quandle homomorphism について ”, 結び目の数理論文集.

[2] Y. Taniguchi, “An f-twisted Alexander matrix for knot quandles” , Abstract of The 27th OCU International Academic Symposium 2019 2020.

[3] Y. Taniguchi, “Quandle homomorphism quivers and quandle quivers as invariants of a quandle” , in preparation.

[4] Y. Taniguchi, “A relationship between f-twisted Alexander matrices and quandle cocycle invariants” , in preparation.

• □頭発表

[1]Y. Taniguchi, “Quandle coloring quivers using dihedral quandles” , First Korea-Russia Conference on Knot theory and Related Topics, online, November 5, 2020.

[2]谷口雄大, “f-twisted Alexander matrix と quandle homomorphism” , 結び目の

数理Ⅲ, online, 2020年12月23日.

[3]Y. Taniguchi, “f-twisted Alexander matrices and quandle cocycle invariants”, The 16th East Asian Conference on Geometric Topology, online, January 27, 2021.

[4]Y. Taniguchi, “An f-twisted Alexander matrix for knot quandles”, The 27th Osaka City University International Academic Symposium Mathematical Science of Visualization, and Deepening of Symmetry and Moduli, online and Osaka City University, March 23, 2021.

(西井良徳)

• 論文

[1] Yoshinori Nishii and Hideaki Sunagawa, “On Agemi-type structural conditions for a system of semilinear wave equations,” *Journal of Hyperbolic Differential Equations*, **17**, no.3 (2020), p.459-473

[2] Chunhua Li, Yoshinori Nishii, Yuji Sagawa and Hideaki Sunagawa, “On the derivative nonlinear Schrödinger equation with weakly dissipative structure,” to appear in *Journal of Evolution Equations*.

[<https://doi.org/10.1007/s00028-020-00634-6>]

[3]Yoshinori Nishii, Hideaki Sunagawa and Hiroki Terashita, “Energy decay for small solutions to semilinear wave equations with weakly dissipative structure,” to appear in *J. Math. Soc. Japan*. [<https://doi.org/10.2969/jmsj/84148414>]

[4]Chunhua Li, Yoshinori Nishii, Yuji Sagawa and Hideaki Sunagawa, “Large time asymptotics for a cubic nonlinear Schrödinger system in one space dimension,” to appear in *Funkcialaj Ekvacioj*. [arXiv:1905.07123]

[5]Chunhua Li, Yoshinori Nishii, Yuji Sagawa and Hideaki Sunagawa, “Large time asymptotics for a cubic nonlinear Schrödinger system in one space dimension, II,” to appear in *Tokyo J. Math.* [arXiv:2001.10682]

[6]Yoshinori Nishii, “Non-decay of the energy for a system of semilinear wave equations,” preprint. [arXiv:2011.06743]

• 口頭発表

[1] 西井良徳、砂川秀明、寺下拓貴 “Energy decay for small solutions to semilinear wave equations with weakly dissipative structure,”

日本数学会 2020年度秋季総合分科会, 熊本大学, 2020年9月24日.

[2] Chunhua Li, 西井良徳、佐川侑司、砂川秀明 “Large time asymptotics for a cubic nonlinear Schrödinger system in one space dimension, II,”

日本数学会 2020年度秋季総合分科会, 熊本大学, 2020年9月25日.

[3] 西井良徳 「弱い消散構造を伴う半線形波動方程式の解のエネルギー減衰」, 京都大学 NLPDE セミナー, オンライン, 2020年10月9日.

[4] 西井良徳 “Energy decay for small solutions to semilinear wave equations with weakly dissipative structure,” 大阪大学微分方程式セミナー,

大阪大学, 2020 年 11 月 27 日.

[5] 西井良徳 “Energy decay for small solutions to semilinear wave equations with weakly dissipative structure,” 第 13 回若手研究者による実解析と偏微分方程式, オンライン/大阪市立大学, 2020 年 12 月 18 日.

(Luis Pedro Castellanos Moscoso)

• 論文

[1] Luis Pedro Castellanos Moscoso, Hiroshi Tamaru.

A classification of left-invariant symplectic structures on some Lie groups.

Preprint. OCAMI Preprint Series 20-19

[2] Luis Pedro Castellanos Moscoso.

Degenerations of orbits and left-invariant symplectic structures on Lie groups.

In progress.

• 口頭発表

[1] “Degenerations of orbits and left-invariant symplectic structures on Lie groups” in Mathematical Science of Visualization, and Deepening of Symmetry and Moduli, March 2021