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Publications

Publications in refereed Journals and Proceedings.

- (1) A. Kriegl, M. Losik, P.W. Michor, A. Rainer, *Lifting smooth curves over invariants for representations of compact Lie groups, II*, J. Lie Theory **15** (2005), No. 1, 227–234, ESI Preprint 1459, arXiv:math.RT/0402222.
- (2) A. Kriegl, M. Losik, P.W. Michor, A. Rainer, *Lifting smooth curves over invariants for representations of compact Lie groups, III*, J. Lie Theory **16** (2006), No. 3, 579–600, ESI Preprint 1806, arXiv:math.RT/0504101.
- (3) S. Hochgerner, A. Rainer, *Singular Poisson reduction of cotangent bundles*, Rev. Mat. Complut. **19** (2006), No. 2, 431–466, ESI Preprint 1681, arXiv:math.SG/0508455.
- (4) M. Losik, A. Rainer, *Choosing roots of polynomials with symmetries smoothly*, Rev. Mat. Complut. **20** (2007), No. 2, 267–291, ESI Preprint 1792, arXiv:math.CA/0603660.
- (5) A. Kriegl, M. Losik, P.W. Michor, A. Rainer, *Lifting mappings over invariants of finite groups*, Acta Math. Univ. Comenianae **77** (2008), No. 1, 93–122, ESI Preprint 1415, arXiv:math.AG/0312030.
- (6) A. Rainer, *Orbit projections as fibrations*, Czechoslovak Math. J. **59** (2009), No. 2, 529–538, ESI Preprint 1854, arXiv:math.DG/0610513.
- (7) A. Rainer, *Orbit projections of proper Lie groupoids as fibrations*, Czechoslovak Math. J. **59** (2009), No. 3, 591–594, arXiv:0712.0706.
- (8) A. Rainer, *Invariant functions in Denjoy–Carleman classes*, Annals of Global Analysis and Geometry **35** (2009), No. 3, 249–266, doi:10.1007/s10455-008-9135-7. arXiv:0711.3163.
- (9) A. Kriegl, P.W. Michor, A. Rainer, *The convenient setting for non-quasianalytic Denjoy–Carleman differentiable mappings*, Journal of Functional Analysis **256** (2009), 3510–3544. doi:10.1016/j.jfa.2009.03.003. arXiv:0804.2995.
- (10) A. Rainer, *Perturbation of complex polynomials and normal operators*, Math. Nach. **282** (2009), No. 12, 1623–1636. doi:10.1002/mana.200910837. arXiv:math.CA/0611633.
- (11) A. Rainer, *Smooth roots of hyperbolic polynomials with definable coefficients*, Israel J. Math., **184** (2011), No. 1, 157–182. doi:10.1007/s11856-011-0063-z. arXiv:0904.4164.
- (12) A. Rainer, *Quasianalytic multiparameter perturbation of polynomials and normal matrices*, Trans. Amer. Math. Soc. **363** (2011), No. 9, 4945–4977. doi:10.1090/S0002-9947-2011-05311-0. arXiv:0905.0837.
- (13) M. Losik, P.W. Michor, A. Rainer, *A generalization of Puiseux’s theorem and lifting curves over invariants*, Rev. Mat. Complut. **25** (2012), No. 1, 139–155. doi:10.1007/s13163-011-0062-y. arXiv:0904.2068.
- (14) A. Rainer, *Lifting quasianalytic mappings over invariants*, Canad. J. Math. **64** (2012), No. 2, 409–428. doi:10.4153/CJM-2011-049-0. arXiv:1007.0836.

- (15) A. Kriegl, P.W. Michor, A. Rainer, *The convenient setting for quasianalytic Denjoy–Carleman differentiable mappings*, Journal of Functional Analysis **261** (2011), 1799–1834. doi:10.1016/j.jfa.2011.05.019. arXiv:0909.5632.
- (16) A. Kriegl, P.W. Michor, A. Rainer, *Many parameter Hölder perturbation of unbounded operators*, Math. Ann. **353** (2012), 519–522. doi:10.1007/s00208-011-0693-9. arXiv:math.FA/0611506.
- (17) A. Kriegl, M. Losik, P.W. Michor, A. Rainer, *Addendum to: “Lifting smooth curves over invariants for representations of compact Lie groups, III” [J. Lie Theory **16** (2006), No. 3, 579–600.]*, J. Lie Theory **22** (2012), No. 1, 245–249. arXiv:1106.6041.
- (18) A. Kriegl, P.W. Michor, A. Rainer, *Denjoy–Carleman differentiable perturbation of polynomials and unbounded operators*, Integral Equations and Operator Theory **71** (2011), No. 3, 407–416. doi:10.1007/s00020-011-1900-5. arXiv:0910.0155.
- (19) A. Rainer, *Perturbation theory for normal operators*, accepted for publication in Trans. Amer. Math. Soc., arXiv:1111.4475.

Preprints and Work in Progress.

- (20) A. Kriegl, P.W. Michor, A. Rainer, *The convenient setting for Denjoy–Carleman differentiable mappings of Beurling and Roumieu type*, arXiv:1111.1819.

Research Monograph. *Perturbation of hyperbolic polynomials and related lifting problems*, enlarged and corrected version of the doctoral thesis as monograph, in preparation,

<http://www.mat.univie.ac.at/~armin/publ/roots-lifts.pdf>

Habilitation Thesis. *Perturbation theory for polynomials and linear operators & The convenient setting for Denjoy–Carleman differentiable mappings*,

<http://www.mat.univie.ac.at/~armin/publ/habilitation.pdf>

Doctoral Thesis. *Choosing roots of polynomials smoothly and lifting smooth curves over invariants*,

<http://www.mat.univie.ac.at/~armin/publ/dissertation.pdf>

Diploma Thesis. *Zerlegungsgleichheit von Kreis und Quadrat*, in German,

<http://www.mat.univie.ac.at/~armin/publ/diplom.pdf>