Arnaud Maret

Mathematisches Institut, Universität Heidelberg
amaret(at)mathi.uni-heidelberg.de
https://arnaudmaret.github.io/

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Employment

Universität Heidelberg, PhD Student of Mathematics, Sep 2018 - present,
Thesis title (provisory): *The symplectic structure of representation varieties*,
Supervisor: prof. Peter Albers.

Education

- MSc in Mathematics (with mention), **ETH Zürich**, Sep 2016 - Jun 2018,
  Thesis title: *Forcing relations for periodic orbits of surface homeomorphisms*,
  Supervisor: prof. Will J. Merry.

- BSc in Mathematics, **EPF Lausanne**, Sep 2013 - Jun 2016,
  Thesis title: *The Hardy-Littlewood Circle Method and the Waring Problem*,
  Supervisor: prof. Yu-Ru Liu (University of Waterloo, CA).

- Exchange program, **University of Waterloo**, CA, Sep 2015 - Jun 2016.

Teaching and seminars

- Organiser of *RTG Seminar on Dynamics in one complex variable*, Universität Heidelberg, 2021.

- Organiser of *Reading seminar: Infinite dimensional symplectic reduction*, Universität Heidelberg, 2021.

- Co-organiser of *Working seminar: Bridgeland's stability conditions for meromorphic differentials* (prof. Pozzetti), Universität Heidelberg, 2020.

- Organiser of *RTG Seminar on Topological K-Theory*, Universität Heidelberg, 2020.

- Co-supervisor of *Blockseminar Hyperbolische Geometrie* (prof. Albers), Universität Heidelberg, 2020.

- Co-organiser of *Seminar on Dynamics of Teichmüller space* (prof. Albers & Wienhard), Universität Heidelberg, 2019.

- Co-organiser of *RTG Seminar on Rational Homotopy Theory*, Universität Heidelberg, 2019.

- Co-supervisor of *Proseminar Differentialgeometrie* (prof. Albers), Universität Heidelberg, 2018.

- Class Tutor for *Wahrscheinlichkeit und Statistik* (prof. Cheridito), ETH Zürich, 2018.

- Class Tutor for *Analyse 2* (prof. Krieger), EPF Lausanne, 2015.

- Class Tutor for *Analyse 1* (prof. Monod), EPF Lausanne, 2014.

Talks

20. (Mar 2020) Group-valued moment maps – construction. At Reading Seminar on Infinite dimensional symplectic reduction, Universität Heidelberg.

19. (Mar 2020) The Julia and the Fatou sets. At RTG Seminar on Dynamics in one complex variable, Universität Heidelberg.

18. (Dec 2020) Compact components for relative character varieties of punctured spheres. At Hauptseminar Geometrie, Universität Heidelberg.

17. (Nov 2020) The symplectic mapping class group. At Working seminar: Bridgeland's stability conditions for meromorphic differentials, Universität Heidelberg.

16. (Oct 2020) K-Theory and stable homotopy groups of spheres. At RTG Seminar on Topological K-Theory, Universität Heidelberg.

15. (Jun 2020) Introduction to sub-Riemannian geometry. At Symplectic Topics Seminar, Universität Heidelberg.

14. (Jun 2020) Symplectic reduction of cotangent bundles. At Seminar Geometric Hydrodynamics meets Dynamical Data Analysis, Universität Heidelberg.

13. (Jun 2020) Super-maximal representations: geometry & dynamics. At Hauptseminar Geometrie, Universität Heidelberg.

12. (Apr 2020) The symplectic geometry of polygons. At Hauptseminar Symplectische Geometrie, Universität Heidelberg.

11. (May 2020) Super-maximal representations and ergodicity. At Hauptseminar Symplectische Geometrie, Universität Heidelberg.

10. (Dec 2019) Symplectic toric manifolds. At Symplectic Topics Seminar, Universität Heidelberg.

9. (Nov 2019) Differential calculus on persistence barcodes. At Journal Club - Topological methods in data analysis, Universität Heidelberg.

8. (Oct 2019) Holomorphic vector bundles on a curve. At Seminar on Higher Teichmüller theory via Higgs bundles, Universität Heidelberg.

7. (Jul 2019) Dynamics of the $SL_2(\mathbb{R})$-action on translation surfaces. At Seminar on Dynamics of Teichmüller Space, Universität Heidelberg.

6. (Apr 2019) Introduction to Teichmüller spaces and deformation of complex structures. At Seminar on Dynamics of Teichmüller Space, Universität Heidelberg.

5. (Mar 2019) Formality of Kähler manifolds. At RTG Seminar on Rational Homotopy Theory, Universität Heidelberg.

4. (Nov 2018) The Goldman Symplectic Form. At Seminar on the Symplectic Structure of Representation Varieties, Universität Heidelberg.

3. (Jun 2018) Forcing relations for periodic orbits of surface homeomorphisms. At Hauptseminar Symplectische Geometrie, Universität Heidelberg.

2. (Mar 2018) *idem.* At Symplectic Geometry Seminar, JLU Giessen.

1. (Mar 2018) *idem.* At Oberseminar Dynamische Systeme, Ruhr-Universität Bochum.

Conferences and workshops attended

- (Jan 2020) Topics at the Interface of Low Dimensional Group Actions and Geometric Structures, National University of Singapore.

- (Nov 2020) 15th International Young Researchers Workshop on Geometry, Mechanics and Control, Universiteit Utrecht.

- (Oct 2020) Symposium: Mathematics in Sciences, Engineering and Economics, KIT Karlsruhe.

- (Oct 2020) Teichmüller Theory: Classical, Higher, Super and Quantum, CIRM Marseille.

- (Jun 2020) Nearly Carbon Neutral Geometric Topology Conference, online.

- (Feb 2020) Winter School on Invariant Function Theorems, JLU Giessen.

- (Feb 2020) CAST 2020: XIV Workshop on Symplectic Geometry, Contact Geometry, and Interactions, Universiteit Antwerpen.

- (Nov 2019) Geometric Dynamics Days, RWTH Aachen University.

- (Aug 2019) Introductory Workshop: Holomorphic Differentials in Mathematics and Physics, MSRI, Berkley.

- (Aug 2019) Workshop on bounded cohomology, Universität Heidelberg.

- (May 2019) Workshop on Geometry, Topology and Computation, Universität Heidelberg.

- (Apr 2019) Graduate school on Geometry of Teichmüller spaces, Simons Center, Stony Brook University, NY.

- (Mar 2019) CAST 2019: XIII Workshop on Symplectic Geometry, Contact Geometry, and Interactions, Humboldt University, Berlin.

- (Mar 2019) Symposium: Geometry, Topology, Analysis and Dynamical systems, Universität Heidelberg.

- (Feb 2019) Geometric Analysis meets Geometric Topology, Universität Heidelberg.

- (Nov 2018) Geometric Dynamics Days, JLU Giessen.

- (Nov 2018) Workshop on Computational Topology and Topological Data Analysis, Heidelberg Institute for Theoretical Studies.

- (Aug 2018) Summer School on Equivariant Symplectic Homology, JLU Giessen.