# Loreno Heer

Dr. sci. nat.

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#### Research interest

Analysis in metric spaces, in particular quasiconformal, quasi-symmetric and quasi-Möbius geometry. (Gromov-)hyperbolic geometry and geometric group theory. Geometric analysis in general and low-dimensional topology. Furthermore I am interested in the geometry of space-time.

# Education

| 11/2015 - 01/2021 | PhD in Mathematics, University of Zurich.                              |
|-------------------|--|
|                   | Thesis: The Boundary at Infinity of Gromov-Hyperbolic Spaces,          |
|                   | supervised by Prof. Dr. Viktor Schroeder, defended January 27, 2021.   |
| 09/2012 - 09/2015 | Master of Science ETH in Mathematics, ETH Zurich.                      |
|                   | Thesis: Undistortedness of Lipschitz n-connected closed subsets in     |
|                   | quasi-convex metric spaces of finite Assouad-Nagata dimension,         |
|                   | supervised by Prof. Dr. Urs Lang.                                      |
| 09/2008 - 09/2012 | Bachelor of Science in Mathematics                                     |
|                   | (with minor Physics and Computer Science), University of Bern.         |
|                   | Thesis: Low-dimensional linear representations of mapping class groups |
|                   | and their triviality in certain cases,                                 |
|                   | supervised by Prof. Dr. Sebastian Baader.                              |
| 09/2000 - 09/2004 | EFZ Computer Science   |

# Appointments

| 11/2015 - 01/2021 | PhD Student and Teaching Assistant, University of Zurich. |
|-------------------|---|
| 09/2004 - 06/2006 | Java Software-Engineer, Swisscom IT-Services.             |
| 02/2003 - 02/2004 | Internship, Swisscom IT-Services.                         |
| 02/2002 - 07/2002 | Internship, Swisscom IT-Services.                         |

# **Publications and Preprints**

[1] Loreno Heer. "Some Invariant Properties of Quasi-Möbius Maps". In: Analysis and Geometry in Metric Spaces 5.1 (28 Aug. 2017), pp. 69-77. DOI: https://doi.org/10.1515/agms-2017-0004. URL: https://www.degruyter.com/view/journals/agms/5/1/article-p69.xml.

# Workshops and Conferences

- •going the MATH way (goMATH 2019), Symposium, Zurich, Swizerland (12 to 14 March 2019).
- Groups, geometries, and spaces in honour of Alessandra Iozzi, ETH Zurich, Switzerland (22 to 25 January 2019).
- Young Geometric Group Theory VII, Les Diablerets, Switzerland (12 to 16 March 2018).
- •23rd Rolf Nevanlinna Colloquium, ETH Zurich, Switzerland (12 to 16 June 2017).

# Professional memberships and refereeing

| since $2021$ | American Mathematical Society.                  |
|--------------|---|
| since $2017$ | Reviewer for MathSciNet (Mathematical Reviews). |
| since $2014$ | Reviewer for zbMATH.                            |
| since $2014$ | Swiss Mathematical Society.                     |

# Teaching experience

#### As an assistant / teaching assistant at University of Zurich

(Responsible for discussion sections, grading, and partly for creating homework assignments, supervising projects.)

| FS16 | MAT151 | Grundbegriffe der Mathematik                        |
|------|--------|---|
| FS16 | MAT153 | Zahlentheorie                                       |
| HS16 | MAT101 | Programming   |
| FS17 | MAT112 | Lineare Algebra II                                  |
| HS17 | MAT101 | Programming   |
| FS18 | MAT823 | Introduction to Computability and Complexity Theory |
| HS18 | MAT101 | Programming   |
| FS19 | MAT184 | Analysis für die Chemie                             |
| HS19 | MAT101 | Programming   |
| FS20 | MAT184 | Analysis für die Chemie                             |
| HS20 | MAT101 | Programming   |

#### MSc Thesis Co-Advisor

FS18 Andresen, Silke Berit Low-dimensional Boundaries of CAT(0) Spaces

#### Additional tasks

FS16 Correction MAT183 FS17 Correction MAT183 HS18 Correction MAT182

### Other activities and outreach

Active on mathoverflow.com and math.stackexchange.com:



# Other skills

Languages German / Swiss German (native). English (proficient). Software LATEX, C, C++, Python, R, Linux, Bash, emacs, vim.

# References

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