Personal information

Name / Surname	**Heer, Loreno**
Address	Haldenstrasse 132
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Personal Email	loreno.heer@gmail.com
Home page	`https://loreno-heer.github.io/`
Nationality	Swiss
Date of birth	25$^{\text{th}}$ October 1984

Desired profession

Research Mathematician

Education

1991 – 1997	Primarschule Wylergut
1997 – 2000	Sekundarschule Wankdorf
2000 – 2004	Lehre als Informatiker
2006 – 2007	BMS, Berufsmaturität technische Richtung
2007 – 2008	BME Passerelle, Matura
2008 – 2012	BSc Mathematics Universität Bern
2012 – 2015	MSc Mathematics ETH Zürich
2015 – 2021	PhD Mathematics Universität Zürich

Bachelor thesis

· Title	*Low-dimensional linear representations of mapping class groups and their triviality in certain cases*
· Advisor	Prof. Dr. Sebastian Baader
· Abstract	Overview of mapping class groups and linear representations thereof. Explaination of the proof of Mustafa Korkmaz, saying that for $g \geq 3$ and $n \leq 2g - 4$, every homomorphism from the mapping class group of an orientable surface of genus g to $\mathrm{GL}(n, \mathbb{C})$ is trivial.

Master thesis

· Title

Undistortedness of Lipschitz n-connected closed subsets in quasi-convex metric spaces of finite Assouad-Nagata dimension

· Advisor

Prof. Dr. Urs Lang

· Abstract

Given a geodesic metric space X and a non-empty closed subset $Z \subset X$, Robert Young proved that undistortedness of Z can be shown given that the Assouad-Nagata dimension of X is finite and Z is Lipschitz n-connected. This improves upon a previous result by Urs Lang and Thilo Schlichenmaier. Some improvements and corrections to Young's proof have been made and the statement has been shown for any quasi-convex metric space X and only requiring the Assouad-Nagata dimension of Z instead of X to be finite.

Doctoral thesis

· Title

The Boundary at Infinity of Gromov-Hyperbolic Spaces

· Advisor

Prof. Dr. Viktor Schroeder

· Abstract

We investigate the boundary at infinity of Gromov-hyperbolic metric spaces. The boundary of a given space is unique up to quasi-Möbius maps. We therefore first investigate which properties remain invari- ant under quasi-Möbius maps. In the second part we develop a new method to study the boundary at infinity by modifying the metric in such a way that we bring infinitely far points into a closed bounded space.

Work experience

1st February 2002 – 31st July 2002

Internship at Swisscom IT-Services

10th February 2003 – 29th February 2004

Internship at Swisscom IT-Services

1st September 2004 – 30th June 2006

Java software-engineer for Swisscom IT-Services

1st November 2015 – 31st January 2021

PhD student and teaching assistant, Universität Zürich

Language skills

Mother tongue

German

Self-assessment European level[*]

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
C1 Proficient user	C2 Proficient user	C1 Proficient user	C1 Proficient user	C1 Proficient user
A1 Basic user	A2 Basic user	A1 Basic user	A1 Basic user	A1 Basic user

English

Persian

[*] *Common European Framework of Reference* (CEF) level

IT knowledge

Operating systems

Linux, Windows

Programing languages

Python, C
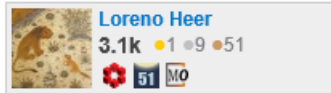
Scientific programing languages	R, LaTeX

Extracurricular activities

I actively participate in the `https://math.stackexchange.com` community to answer math related questions:

Reviewer for Zentralblatt MATH and AMS MathSciNet. Member of the Swiss Mathematical Society.

Leasure time activities

Sports	Swimming.
Traveling	I like to travel and am interested in different cultures and countries.
Arts and literature	Playing piano and church organ.

Teaching activities

A complete list of all my TA assignments is available upon request.

2018 MSc Thesis Co-Advisor for Silke Berit Andresen: Low-dimensional Boundaries of CAT(0) Spaces.

Publications

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`

References

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