

# Dr. Christoph Schießl



## Personal data

Address Lindenstraße 3  
8162 Zürich  
Switzerland  
E-Mail christoph.schiessl@posteo.ch  
Data of birth 04.04.1990  
Nationality german  
Homepage c-schiessl.de

## Education

- 09/2013 - 12/2017 **Ph.D., Mathematics,**  
ETH Zürich, advisor: Rahul Pandharipande,  
Dissertation: Cohomology of configuration spaces  
Topics: algebraic topology & algebraic geometry, configuration spaces  
extensive computer experiments in Python / Sage .
- 09/2012-08/2013 **Master of science, Mathematics,**  
LMU Munich, final grade 1.2 (on a scale 1.0/best - 5.0/worst)  
Dissertation: Computing the Brauer groups of quartic del Pezzo surfaces.
- 09/2009-09/2012 **Bachelor of Science, Mathematics,**  
LMU Munich, minor subject Computer Science, final grade 1.0 (on a scale 1.0/best - 5.0/worst)  
Dissertation: Hasse Principle and Weak Approximation  
Stipendiat des Max-Weber-Programms und der Studienstiftung des deutschen Volkes.
- 06/2009 **Abitur/ high school diploma,**  
Gymnasium Trostberg, final grade 1.0 final grade 1.0 (on a scale 1.0/best - 6.0/worst) .

## Professional experience

- 09/2018-heute **Software Engineer, Heidenhain Numerik AG,**  
Research on algorithms for feed control of CNC-machines, Implementation in C++, maintenance of legacy software.
- 05/2018-08/2018 **guest scientist in the research group Single Molecule Microbiology at the Max-Planck-Institute Marburg,**  
Developement and implementation of software for the analysis of high-resolution fluorescence microscopy, algorithms for single particle tracking of molecules in living cells  
Methods: bayesian statistics, Markov chains, graphical models  
Used software: C++, Stan, Python, Pandas.
- 09/2013-04/2018 **scientific assistant, ETH Zurich,** Organization of lectures, teaching of various exercise classes.
- 09/2010-07/2013 **scientific assistant, LMU Munich,** Organization of lectures, teaching of various exercise classes.

## Programming skills

Long experience **C++, Python**  
**CAS like Matlab, Magma and Sage, Latex**  
**git, bash, Linux**

Occasional use **SQL, R, stan**

## Language skills

German native language  
English fluent

## Publications

- 01/2018 **Configuration spaces of  $C - k$ ,**  
*Preprint, arxiv.org/abs/1801.09327.*
- 01/2018 **Configurations of points with sum 0,**  
*Preprint, arxiv.org/abs/1801.05036.*
- 01/2018 **Integral cohomology of configuration spaces of the sphere,**  
*Homology, Homotopy and Applications, 21 (1).*
- 02/2016 **Betti numbers of unordered configuration spaces of the torus,**  
*Preprint, arxiv.org/abs/1602.04748.*

## Scientific talks

- 07/2017 **Cohomology of configuration spaces of the sphere,**  
*Algebraic geometry and moduli seminar, ETH Zürich.*
- 07/2017 **Betti numbers of configuration spaces,**  
*Oberseminar Kombinatorik, Universität Leipzig.*
- 08/2016 **Betti numbers of configuration spaces,**  
*Pisa-Hokkaido Summer School, Centro de Giorgi, Pisa.*
- 04/2016 **Betti numbers of configuration spaces,**  
*Algebraic geometry and moduli seminar, ETH Zürich.*
- 09/2014 **Asymptotic behavior of Gromov-Witten invariants,**  
*Algebraic geometry and moduli seminar, ETH Zürich.*