

# Curriculum Vitae of Sven Wang

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**Place and date of birth:** 27 October 1995  
Frankfurt am Main  
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## RESEARCH INTERESTS

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Within mathematical statistics, I have worked extensively on the theory of Bayesian inference, high-dimensional Markov chain Monte Carlo (MCMC), and inverse problems with partial differential equations (PDE) or stochastic processes, which are often motivated by applications e.g. from physics and medical imaging. Further, I am interested in interdisciplinary problems with societal focus. Recently, I worked on social choice theory and its interplay with statistics; especially algorithmic aspects of democratic innovations such as randomly selected citizens' assemblies.

## ACADEMIC BACKGROUND

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<b>Assistant Professor (W1 Juniorprofessor)</b> <b>Humboldt University Berlin, Department of Mathematics</b>	since 09/2023
<b>Postdoc in Statistics</b> <b>MIT, Institute for Data, Systems and Society, USA</b> Mentor: Youssef Marzouk	04/2021–08/2023
<b>PhD in Mathematical Statistics</b> <b>University of Cambridge, Trinity College, UK</b> Advisor: Richard Nickl Thesis examiners: Gabriel Paternain and Aad van der Vaart Thesis title: Statistical inference and computation in elliptic PDE models	09/2016–11/2020
<b>MASt in Mathematics</b> <b>University of Cambridge, Trinity College, UK</b> Final grade: 84/100 (with distinction)	10/2015–07/2016
<b>BSc in Mathematics</b> <b>Ludwig Maximilian University Munich</b> Final grade: 1.06 (best: 1.0), minor in Philosophy	09/2012–07/2015

## AWARDS & SCHOLARSHIPS (SELECTED)

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<b>Member of the Junge Akademie</b> Elected (by the BBAW and Leopoldina) into the Junge Akademie, the leading scientific academy for young scientists from German-speaking areas. 10 scholars / artists elected per year, for five years, to foster interdisciplinary and societal dialogue.	2024–2029
<b>Research scholarship, Trinity College, Cambridge</b>	2016–2020

Awarded to top ~10% of each PhD research cohort at Trinity College.

**Scholarship, Studienstiftung des deutschen Volkes** 2012–2016  
Including a full scholarship to study at Cambridge University 2015–2016.

**Full scholarship, Maximilianeum Foundation** 2012–2015  
Full scholarship for undergraduate studies at LMU Munich. Awarded annually to top 5–8 (of ~30000) high school graduates in Bavaria.

## SCIENTIFIC ACTIVITIES

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Over 30 invited seminar and conference talks in the last 3 years.

### Selected conference talks:

SIAM Conference on Uncertainty Quantification (2022, 2024)

SIAM Conference on Computational Science and Engineering (2023)

Foundations of Responsible Computing (2023)

Foundations of Computational Mathematics (2023)

Economics and Computation (2023)

Applied Inverse Problems (2023)

ESI workshop “Statistical estimation and deep learning in UQ for PDEs” (2022)

Bayesian Nonparametrics (BNP) Conference, Cyprus (2022)

Oberwolfach workshop “Data Assimilation: Mathematical Foundation and Applications” (2022)

AMS Western Sectional meeting (2022)

BANFF workshop “Statistical Aspects of Non-Linear Inverse Problems” (2021)

Oberwolfach workshop “Foundations of Bayesian Inference for Complex Statistical Models” (2021)

Conference on Bayesian Nonparametrics, Oxford (2019)

**As organizer:** Symposium on “Statistical and computational guarantees for non-linear inverse problems”, Applied Inverse Problems, Göttingen (with R. Nickl, 2023). Co-organizer of the “mathematical statistics” seminar at Weierstrass Institute, Berlin (with S. Greven, W. Härdle, M. Reiss and V. Spokoiny, since 2023)

## TEACHING & MENTORSHIP

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**Mentoring of PhD students** since 2021  
Co-supervision of PhD students Robert Ren (MIT) and Xuhui Zhang (Stanford).

**Teaching Assistant, University of Cambridge** 2016–2020  
Group supervisions for numerous undergraduate courses, including: Statistics (year 2), Statistical Modelling (year 3), Principles of Statistics (year 3), Applied Probability (year 3).

**Lecturer, Fraunhofer European Talent Academy** 2017  
Designed and taught a course titled ‘Physics and Music’ for high school students aged 15–18.

## WORK & LEADERSHIP EXPERIENCE

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**Staff collaborative pianist, MIT music department** 2021–2022  
Coached students holding an *Emerson/Harris Program scholarship* in music performance.

**Data scientist (internship), QuantCo** 2020  
Implementation of graph Tikhonov regularisation for spatial statistical modeling (in Python), now used across the company.

**President, Trinity Responsible Investment Society** 2019–2020

Led student group advocating for the responsible investment of Trinity College's £1.5bn endowment. Contributed to Trinity College's 2021 decision to fully divest from fossil fuels and adopt net zero emission targets by 2050.

**Cycling for Syria**

2015

Six-month charity bike tour across Europe (12.000km). Collected Eur 20.000 for charity organization *Doctors of the World*.

**MUSIC**

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As a pianist, I have performed in various recitals in UK, Germany and USA since 2016, and I continue for perform occasionally, especially in art song and chamber music. I have been prize-winner at several competitions, such as Cambridge University's Edith Leigh Piano Prize (2018) and 'Jugend Musiziert' (2003–2012). I studied piano with Prof. Wolfgang Schamschula (Mainz), Prof. Joseph Middleton (Cambridge) and Prof. Ran Blake (Boston), and voice with Prof. Michael Schopper (Munich).