

# Andreas Küpfer

Computational Social Scientist

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My research focuses on (multimodal) political communication, combining machine learning models with traditional methods to address substantive questions related to party competition and political behaviour.

## Current Position

2022-present

**Political Science Ph.D. Candidate and Research Associate**

Technical University of Darmstadt

Supervisors: Christian Stecker (Technical University of Darmstadt) and Christian Arnold (University of Birmingham)

## Education

2019-2022

**M.Sc. Data Science**, University of Mannheim

Supervisors: Thomas Gschwend and Denis Cohen

Thesis: *When local context trumps party unity: Using Twitter and NLP to explain geographical heterogeneity in legislators' policy communication*

2015-2019

**B.Sc. Business Information Systems**, University of Applied Sciences Karlsruhe

2017

**ERASMUS Student, B.Sc. Informatics**, Metropolia University of Applied Sciences in Helsinki, Finland

## Publications

2025

[The sound of party competition: how applause reflects unity, disagreement, and the electoral cycle in parliaments](#)

A. Küpfer, J. Müller, C. Stecker

West European Politics (WEP)

2025

[The Politics of Seeking and Avoiding Discourse in Parliament](#)

E. Koch, A. Küpfer

European Journal of Political Research (EJPR)

2024

[Nonrandom Tweet Mortality and Data Access Restrictions: Compromising the Replication of Sensitive Twitter Studies](#)

A. Küpfer

Political Analysis (PA)

2024

[The Role of Hyperparameters in Machine Learning Models and How to Tune Them](#)

C. Arnold, L. Biedebach, A. Küpfer, M. Neunhoeffler

Political Science Research and Methods (PSRM)

## Working Papers

- 2025 **Measuring Media Slant through Image Analysis**  
C. Arnold, A. Küpfer, O. Rittmann, M. Torres
- 2025 **Striving for Confrontation? Opposition Status, Gender, and the Far Right**  
A. Küpfer  
(Under Review)
- 2025 **Extracting Image, Voice, and Text Data from Complex Local Public Meetings**  
M. Holman, A. Küpfer, T. Simko
- 2025 **Polarization in Bi-Directional Political Communication: Analysing the Language of Abgeordnetenwatch Questions and Answers**  
C. Arnold, A. Küpfer, C. Sheldon
- 2024 **Structuring Quantitative Image Analysis with Object Prominence**  
C. Arnold, A. Küpfer  
(Under Review)
- 2024 **Alignment Helps Make the Most of Multimodal Data**  
C. Arnold, A. Küpfer  
(Under Review)

## Research Visits and Summer Schools

- 10/2024-10/2025 **Data and Methods Unit**, Mannheim Centre for European Research (MZES), University of Mannheim, Germany
- 06/2024 **Video Research Institute, Center for C-SPAN Scholarship & Engagement (CCSE) (Bryce Dietrich)**, Purdue University, US
- 02/2024-03/2024 **Centre for Artificial Intelligence in Government (CAIG) (Slava Jankin)**, University of Birmingham, UK

## Grants, Certificates, and Awards

- 2025 **Grant: APSA Political Communication Travel Award, 600\$**
- 2025 **Certificate: TU Darmstadt Higher Education Teaching Certificates: Professional Competence Level (200 hours)**
- 2024 **Grant: German Research Foundation (DFG) Grant "Analysing Legislative Politics with Aligned Text, Audio, and Image Data" with Christian Arnold and Christian Stecker, 285'000€**
- 2024 **Grant: APSA Political Communication SPARK Travel Award, 750\$**
- 2023 **Award: Athene Award for excellent teaching (TU Darmstadt), 2'000€**

## Teaching and Supervision

- Master Thesis Supervisions: 2**
- Student Assistant Supervisions: 5**
- 2024 **Machine Learning for Social Scientists**, PhD graduate school course, MZES (with Ruben Bach)
- 2024 **Introduction to Analysis and Comparison of Political Systems**, Undergraduate proseminar, Technical University of Darmstadt
- 2023 **Quantitative Text Analysis in R**, Postgraduate seminar, Technical University of Darmstadt

2023	<b>Data Analysis: From Data Crawling to Visualization</b> , Guest lecture (180 minutes), National University of Kyiv-Mohyla Academy
2023	<b>Getting started with Python: A how-to guide for social scientists</b> , Workshop with two sessions à 90 minutes, MZES Social Science Data Lab (with Ruben Bach)
2022, 2023	<b>Introduction to Quantitative Methods in R</b> , Postgraduate seminar, Technical University of Darmstadt
2022	<b>Collection, Management, and Analysis of Twitter Data: Using the Twitter API for Academic Research and BERT</b> , Workshop (90 minutes), MZES Social Science Data Lab
2017	<b>IT Security and Operating Systems</b> , Undergraduate tutorial, University of Applied Sciences Karlsruhe
2016	<b>Programming II</b> , Undergraduate tutorial, University of Applied Sciences Karlsruhe
2016	<b>Introduction to Business Informatics</b> , Undergraduate tutorial, University of Applied Sciences Karlsruhe

## Research Dissemination

### Conferences

2025	<b>APSAP</b> <sup>P</sup> , Vancouver, Canada
2025	<b>COMPTExT</b> <sup>P,c,d</sup> , Vienna, Austria
2025	<b>PSA</b> , Birmingham, UK
2024	<b>APSAP</b> <sup>P</sup> , Philadelphia, US
2024	<b>EPSAP</b> <sup>P</sup> , Cologne, Germany
2024	<b>COMPTExT</b> <sup>P</sup> , Amsterdam, Netherlands
2024	<b>IASGP Annual Conference</b> <sup>c</sup> , Darmstadt, Germany
2023	<b>IASGP Annual Conference</b> <sup>P</sup> , Mannheim, Germany
2023	<b>ECPR Standing Group on Parliaments</b> <sup>P,d,c</sup> , Vienna, Austria
2023	<b>EPSAP</b> <sup>P,d</sup> , Glasgow, UK
2023	<b>COMPTExT</b> <sup>P,c</sup> , Glasgow, UK
2022	<b>DVPW Group Comparative Research on Parliaments</b> <sup>P</sup> , Bremen, Germany
2022	<b>EPSAP</b> <sup>P</sup> , Prague, Czech Republic
2022	<b>PolMeth Europe</b> <sup>P</sup> , Hamburg, Germany
2021	<b>PolMeth Europe</b> , Virtual

p = Presenter, d = Discussant, c = Panel Chair/Roundtable

### Press

2025	<a href="#"><u>When do politicians engage in discourse – and when do they avoid it?</u></a> , LSE EUROPP – European Politics and Policy Blog (with Elias Koch)
2023	<a href="#"><u>Der Frankfurter Wahlkompass VOTO zur OB-Wahl 2023</u></a> , <a href="#"><u>FAZ</u></a> (with Thilo Dieing and Christian Stecker)

- 2023 [Wahlrecht ab 16, mehr autofreie Zonen und gebührenfreie Kinderbetreuung? Die Positionen der Kandidierenden zur Oberbürgermeisterwahl in Darmstadt in der Online-Wahlhilfe VOTO](#), [Darmstädter Echo](#) (with Christian Stecker)
- 2023 [Wahlkompass bietet Orientierung im Kandidatenschwungel \(FAZ\)](#), (with Christian Stecker)
- 2023 [Viele Köpfe und ein breites Angebot. Die Positionen der Kandidierenden zur Frankfurter Oberbürgermeisterwahl](#), [FAZ](#) (with Christian Stecker)

## Web Publications

- 2023 [BERT and Explainable AI](#), Methods Bites, Blog of the Mannheim Centre for European Research (MZES) Social Science Data Lab
- 2022 [Collection, Management, and Analysis of Twitter Data](#), Methods Bites, Blog of the Mannheim Centre for European Research (MZES) Social Science Data Lab

## Software

- 2022 **triviz**, Triangular visualizations for the significance of pairwise differences from multigroup comparisons (Denis Cohen and Andreas Küpfer)

## Referee

*Computational Communication Research • Computational Linguistics for the Political and Social Sciences 2025 at KONVENS (Workshop) • Computational Linguistics for the Political and Social Sciences 2024 at KONVENS (Workshop) • Nature Scientific Data • Political Analysis • ZPol*

## Community Service

*Co-Organizer/Contributor of the [Social Science Data Lab \(SSDL\)](#) at MZES (since 03/2021) • Co-Organizer of the 2024 [ECPR Summer School on Parliaments](#) (08/2024) • Member of the decision committee for the German public-private scholarship (Deutschlandstipendium) (since 11/2023) • Data infrastructure representative (since 11/2023)*

## Selected Work Experience (Academia)

- 03/2021-09/2024 **Student Research Assistant at Social Science Data Lab**, Mannheim Centre for European Research (MZES) (Denis Cohen)
- 10/2020-12/2021 **Student Research Assistant at Chair of Political Science, Quantitative Methods in the Social Sciences**, University of Mannheim (Thomas Gschwend)
- 09/2021-12/2021 **Student Research Assistant at Project Data Science and Big Data at Schools [Prodabi](#)**, Paderborn University (Rolf Biehler)

## Selected Work Experience (Industry)

- 07/2018-02/2020 **Working Student Data Science/Finance**, SAP SE in Walldorf, Germany
- 02/2018-07/2018 **Internship Custom Solution Development**, Capgemini in Stuttgart, Germany