

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. Neunhoeffner

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 **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 Award, 750\$**
- 2023 **Award: Athene Award for excellent teaching (TU Darmstadt), 2'000€**

Teaching and Supervision

Master Thesis Supervisions: 2

Student Assistant Supervisions: 4

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

Research Dissemination

Conferences

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

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

Press

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