

Dr. Simon Roessig (né Ritter)

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RESEARCH INTERESTS

Experimental phonetics · laboratory phonology · prosody · intonation · speech production · speech perception · prominence · information structure · categoriality and gradience in speech · task dynamics & articulatory phonology · computational modelling of speech · intonation in L2 acquisition · multimodality of prosody

EDUCATIONAL BACKGROUND

since 01.09.2023	Postgraduate Certificate in Academic Practice Master's-level programme in higher education teaching, University of York, UK.
01.01.2017 – 21.01.2021	Doctor of Philosophy in Phonetics a.r.t.e.s. Graduate School for the Humanities, University of Cologne, Germany. Summa cum laude (highest grade). Date of defense: 10.06.2020; date of certificate: 21.01.2021.
01.10.2012 – 03.06.2014	Master of Arts in Linguistics - Phonetics University of Cologne, Germany. With distinction (highest grade).
01.10.2008 – 31.07.2012	Bachelor of Arts in Linguistics & Phonetics and Information Processing University of Cologne, Germany. With distinction (highest grade).

PROFESSIONAL EXPERIENCE

since 29.08.2023	Lecturer Department of Language and Linguistic Science, University of York, UK.
01.08.2022 – 28.08.2023	Walter Benjamin postdoctoral research fellow Project “A task dynamic approach to prosodic strength relations”, Department of Linguistics, Cornell University, Ithaca, New York, USA. Funded by the German Research Foundation (DFG), host: Sam Tilsen.
01.01.2021 – 31.07.2022	Postdoctoral researcher DFG-funded CRC “Prominence in Language”, project “Dynamic modelling of prosodic prominence”, Department of Linguistics – Phonetics, University of Cologne, Germany. Part time: 75% (except for Sep to Dec 2021: 100%).
01.01.2017 – 31.12.2020	Doctoral researcher DFG-funded CRC “Prominence in Language”, project “Dynamic modelling of prosodic prominence”, Department of Linguistics – Phonetics, University of Cologne, Germany. Part time: 65% (parental leave: Apr to Jul 2020).
01.02.2015 – 30.11.2016	Software developer North Rhine-Westphalian Library Service Centre, Cologne, Germany.

01.03.2010 – 31.08.2015

Student research assistant

DFG project “Degrees of activation and focus-background structure in spontaneous speech – the relation between prosodic marking and syntactic and semantic structure building”, Department of Linguistics – Phonetics, University of Cologne, Germany.

FUNDING

2022 **Walter Benjamin postdoc project** “A task dynamic approach to prosodic strength relations (TARE)” funded by the German Research Foundation (DFG). The research was conducted at the Phonetics Laboratory of Cornell University. Granted for 24 months (13 months taken).

AWARDS

- 2023 **Travel grant of the International Phonetic Association** for my single-author paper “Prosody of pre-focal background depends on following focus” at the 20th International Congress of Phonetic Sciences.
- 2021 **Offermann-Hergarten Prize** of the Faculty of Arts and Humanities of the University of Cologne for my dissertation “Categoriality and continuity in prosodic prominence”.
- 2018 **Best Student Paper Award** of the “16th Conference on Laboratory Phonology” for my poster “The phonetics and phonology of focus marking – an integrated perspective”.
- 2013 **Best Student Paper Award** of the conference “Phonetics and Phonology in Iberia” for my talk “The role of tonal onglides in German nuclear pitch accents”.

ONGOING COLLABORATIONS

Advancing the modelling of prosodic prominence in articulatory phonology

Sam Tilsen (Cornell University, USA)

Prosodic strengthening and focus intonation in Persian

Mortaza Taheri-Ardali (Shahrekord University, Iran)

Lena Pagel (University of Cologne, Germany)

Doris Mücke (University of Cologne, Germany)

Kinematic analyses of visual prosody: Head movements, information structure, and speaking styles

Márton Sóskuthy (University of British Columbia, Canada)

Lena Pagel (University of Cologne, Germany)

Doris Mücke (University of Cologne, Germany)

Sociolinguistic variation in intonation: the case of rise-falls in Yorkshire English

Sam Hellmuth (University of York, UK)

Marina Cantarutti (University of York, UK)

Modelling impaired speech in the task dynamics framework

Antje Mefferd (Vanderbilt University, USA)

Ben Parrell (University of Wisconsin-Madison, USA)

Anne Hermes (CNRS / Université Sorbonne Nouvelle, France)

Sarah Harper (University of California San Francisco, USA)

Doris Mücke (University of Cologne, Germany)

Tabea Thies (University of Cologne, Germany)

The role of pre-nuclear accents in the perception of intonation contours

Frank Kügler (Goethe University, Germany)

Prosodic marking of information status: prominence relations & individual strategies

Janne Lorenzen (University of Cologne, Germany)

Stefan Baumann (University of Cologne, Germany)

PUBLICATIONS

Note: Prior to May 2019, I published under my former name Ritter.

Monograph

Roessig, S. (2021). *Categoriality and continuity in prosodic prominence*. Language Science Press.

<https://doi.org/10.5281/zenodo.4121875>

Peer-reviewed journal articles

Roessig, S. (accepted, Dec 2023). The inverse relation of pre-nuclear and nuclear prominences in German.

Laboratory Phonology, 14(1), 1–40. <https://doi.org/10.16995/labphon.9993>

(Pre-print: <https://psyarxiv.com/upmka>)

Mücke, D., **Roessig, S.**, Mefferd, A., Thies, T., & Hermes, A. (2024) Challenges with the kinematic analysis of neurotypical and impaired speech: measures and models. *Journal of Phonetics*, 102, 101292.

<https://doi.org/10.1016/j.wocn.2023.101292>

Coretta, S., Casillas, J. V., **Roessig, S.**, [...] & Roettger, T. B. (2023). Multidimensional signals and analytic flexibility: Estimating degrees of freedom in human speech analyses. *Advances in Methods and Practices in Psychological Science*, 6(3), 1–29. <https://doi.org/10.1177/25152459231162567>

Dahmen, S., Grice, M., & **Roessig, S.** (2023). Prosodic and Segmental Aspects of Pronunciation Training and Their Effects on L2. *Languages*, 8(1), 74. <https://doi.org/10.3390/languages8010074>

Roessig, S., Winter, B., & Mücke, D. (2022). Tracing the Phonetic Space of Prosodic Focus Marking. *Frontiers in Artificial Intelligence*, 5, 842546. <https://doi.org/10.3389/frai.2022.842546>

Roessig, S., & Mücke, D. (2019). Modeling Dimensions of Prosodic Prominence. *Frontiers in Communication*, 4(44). <https://doi.org/10.3389/fcomm.2019.00044>

Roessig, S., Mücke, D., & Grice, M. (2019). The dynamics of intonation: Categorical and continuous variation in an attractor-based model. *PLOS ONE*, 14(5), 1–36. <https://doi.org/10.1371/journal.pone.0216859>

Grice, M., **Ritter, S.**, Niemann, H., & Roettger, T. B. (2017). Integrating the discreteness and continuity of intonational categories. *Journal of Phonetics*, 64, 90–107. <https://doi.org/10.1016/j.wocn.2017.03.003>

Ritter, S., & Grice, M. (2015). The Role of Tonal Onglides in German Nuclear Pitch Accents. *Language and Speech*, 58(1), 114–128. <https://doi.org/10.1177/0023830914565688>

Peer-reviewed conference proceedings

Roessig, S. (2023). Prosody of pre-focal background depends on following focus. *Proceedings of the 20th International Congress of Phonetic Sciences*. <https://doi.org/10.5281/zenodo.10377104>

Parrell, B., Mefferd, A., Harper, S., **Roessig, S.**, & Mücke, D. (2023). Using computational models to characterize the role of motor noise in speech: The case of amyotrophic lateral sclerosis. *Proceedings of the 20th International Congress of Phonetic Sciences*. <https://doi.org/10.5281/zenodo.10377123>

Pagel, L., Sóskuthy, M., **Roessig, S.**, & Mücke, D. (2023). A kinematic analysis of visual prosody: Head movements in habitual and loud speech. *Proceedings of the 20th International Congress of Phonetic Sciences*. <https://doi.org/10.5281/zenodo.10299230>

Lorenzen, J., **Roessig, S.**, & Baumann, S. (2023). Redundancy and individual variability in the prosodic marking of information status in German. *Proceedings of the 20th International Congress of Phonetic Sciences*. <https://doi.org/10.5281/zenodo.10377147>

Roessig, S., Pagel, L., & Mücke, D. (2022). Speaking loudly reduces flexibility and variability in the prosodic marking of focus types. *Proceedings of Speech Prosody 2022*, 500–504.
<https://doi.org/10.21437/SpeechProsody.2022-102>

Lorenzen, J., **Roessig, S.,** & Baumann, S. (2022). Information status and tonal context jointly modulate prosodic prominence relations in German. *Proceedings of Speech Prosody 2022*, 7–11.
<https://doi.org/10.21437/SpeechProsody.2022-2>

Buech, P., **Roessig, S.,** Pagel, L., Mücke, D., & Hermes, A. (2022). ema2wav: Doing articulation by Praat. *Proceedings of Interspeech 2022*, 1352–1356. <https://doi.org/10.21437/Interspeech.2022-10813>

Roessig, S., Mücke, D., & Pagel, L. (2019). Dimensions of Prosodic Prominence in an Attractor Model. *Proceedings of Interspeech 2019*, 2533–2537. <https://doi.org/10.21437/Interspeech.2019-2227>

Kügler, F., Smoliboeki, B., Arnold, D., Baumann, S., Braun, B., Grice, M., Jannedy, S., Michalsky, J., Niebuhr, O., Peters, J., **Ritter, S.,** Röhr, C., Schweitzer, A., Schweitzer, K., & Wagner, P. (2015). DIMA – annotation guidelines for German intonation. *Proceedings of the 18th International Congress of Phonetic Sciences*.
<http://nbn-resolving.de/urn:nbn:de:bsz:352-0-310653>

Ritter, S., & Roettger, T. B. (2014). Speakers modulate noise-induced pitch according to intonational context. *Proceedings of Speech Prosody 2014*, 890–894. <https://doi.org/10.21437/SpeechProsody.2014-167>

Other publications

Pagel, L., **Roessig, S.,** & Mücke, D. (2022). How to achieve a prominence GOAL! in different speaking styles. In C. Gianollo, Ł. Jędrzejowski, & S. I. Lindemann, *Paths through meaning and form: Festschrift offered to Klaus von Heusinger on the occasion of his 60th birthday*. Universitäts- und Stadtbibliothek Köln.
<https://doi.org/10.18716/omp.3>

Pagel, L., **Roessig, S.,** & Mücke, D. (2021). Modifications of tongue body kinematics as a focus marking strategy in German. *Proceedings of the 12th International Seminar on Speech Production*.
<https://doi.org/10.5281/zenodo.5081658>

Manuscripts under review / in revision

Roessig, S., Taheri-Ardali, M., Pagel, L. & Mücke, D. Marking of different focus types in Persian. Conference proceeding under review for *Speech Prosody 2024*.

Lorenzen, J., **Roessig, S.,** & Baumann, S. Paradigmatic and syntagmatic effects of information status on prosodic prominence – Evidence from an interactive web-based production experiment in German. Journal article accepted pending major revisions in *Frontiers in Psychology*.

Taheri-Ardali, M., **Roessig, S.,** Pagel, L. & Mücke, D. Prosodic cues in broad, narrow, and corrective focus in Persian. Journal article under review in *Language and Speech*.

Pagel, L., **Roessig, S.,** & Mücke, D. The encoding of prominence relations in supra-laryngeal articulation across speaking styles. Journal article under review in *Laboratory Phonology*.

PRESENTATIONS

Note: Prior to May 2019, I gave presentations under my former name Ritter.

Invited talks

Roessig, S. (2023, March 29). *Exploring three facets of prominence: Categoriality/gradience, multidimensionality, relations*. Prosody & Speech Dynamics Lab, Northwestern University, Chicago, USA.

Roessig, S. (2022, May 11). *Two dimensions of prominence relations: Prosodic focus marking in habitual and loud speech*. Institute of Phonetics and Speech Processing, LMU Munich, Germany.

Roessig, S. (2022, April 5). *Prominence relations on two axes: Evidence from focus marking in habitual and loud speech*. Phonetics and Phonology Research Group, University Bielefeld, Germany.

- Roessig, S.**, & Mücke, D. (2020, January 8). *Prosodic prominence: Discreteness, gradience, and a dynamical systems account*. Phonetics and Phonology Research Group, University Bielefeld, Germany.
- Ritter, S.**, & Mücke, D. (2019, January 8). *Prosodic variation from a dynamical perspective*. Institut für Romanistik, University Hamburg, Germany.
- Ritter, S.**, & Mücke, D. (2018, November 14). *Prosody in a dynamic systems account*. Department Linguistics, University Potsdam, Germany.

Selected talks and posters at international conferences and workshops

- Pagel, L., **Roessig, S.**, & Mücke, D. (forthcoming). *An experimental setup for capturing multimodal accommodation using dual electromagnetic articulography, audio, and video* [Poster]. International Seminar of Speech Production 2024.
- Roessig, S.** (forthcoming). *Effects of focus structure on prenuclear prosody* [Talk]. DGfS Jahrestagung, AG 10: Prosody in focus, Bochum, Germany.
- Roessig, S.** (2023, August 8). *Prosody of pre-focal background depends on following focus* [Talk]. 20th International Congress of Phonetic Sciences, Prague, Czech Republic. **Awarded with a travel grant of the International Phonetic Association.**
- Parrell, B., Mefferd, A., Harper, S., **Roessig, S.**, & Mücke, D. (2023, August 8). *Using computational models to characterize the role of motor noise in speech: The case of amyotrophic lateral sclerosis* [Talk]. 20th International Congress of Phonetic Sciences, Prague, Czech Republic.
- Pagel, L., Sóskuthy, M., **Roessig, S.**, & Mücke, D. (2023, August 7). *A kinematic analysis of visual prosody: Head movements in habitual and loud speech* [Talk]. 20th International Congress of Phonetic Sciences, Prague, Czech Republic.
- Lorenzen, J., **Roessig, S.**, & Baumann, S. (2023, August 8). *Redundancy and individual variability in the prosodic marking of information status in German* [Talk]. 20th International Congress of Phonetic Sciences, Prague, Czech Republic.
- Pagel, L., **Roessig, S.**, Sóskuthy, M., & Mücke, D. (2023, June 4). *Multimodal signatures of prosodic prominence in habitual and loud speech* [Talk]. International Multimodal Communication Symposium, Barcelona, Spain.
- Lorenzen, J., **Roessig, S.**, & Baumann, S. (accepted). *Exploring individual strategies in prosodic marking of information status in German* [Poster]. Phonetics and Phonology in Europe 2023, Nijmegen, Netherlands.
- Roessig, S.**, Winter, B., & Mücke, D. (2022, June 25). *Exploring the phonetic space of focus* [Poster]. LabPhon 18, online.
- Roessig, S.**, Pagel, L., & Mücke, D. (2022, May 25). *Speaking loudly reduces flexibility and variability in the prosodic marking of focus types*. [Talk]. Speech Prosody, Lisbon, Portugal.
- Roessig, S.**, Lorenzen, J., & Baumann, S. (2022, June 3). *Evidence for a prosodic prominence budget in German utterances* [Poster]. 3rd International Conference "Prominence in Language," Cologne, Germany.
- Pagel, L., **Roessig, S.**, & Mücke, D. (2022, August 27). *Supra-laryngeal articulation under vocal effort variation* [Poster]. Speech Motor Control, Groningen, Netherlands.
- Pagel, L., **Roessig, S.**, & Mücke, D. (2022, June 3). *Articulatory encoding of prominence in habitual and loud speech* [Talk]. 3rd International Conference "Prominence in Language," Cologne, Germany.
- Mücke, D., Antje, M., Thies, T., **Roessig, S.**, & Hermes, A. (2022, August 27). *Analysis and Modelling of Impaired Speech Movements: Challenges and Future Direction* [Poster]. Speech Motor Control, Groningen, Netherlands.
- Lorenzen, J., **Roessig, S.**, & Baumann, S. (2022, June 25). *Syntagmatic and paradigmatic effects of information status on prosodic prominence relations in German – an online production task* [Poster]. LabPhon 18, online.
- Lorenzen, J., **Roessig, S.**, & Baumann, S. (2022, May 23). *Information status and tonal context jointly modulate prosodic prominence relations in German* [Talk]. Speech Prosody, Lisbon, Portugal.

- Lorenzen, J., **Roessig, S.**, & Baumann, S. (2022, October 6). *Individual variability in the prosodic encoding of information status in German* [Poster]. Phonetik und Phonologie im deutschsprachigen Raum, Bielefeld, Germany.
- Buech, P., **Roessig, S.**, Pagel, L., & Hermes, A. (2022, August 27). *Making articulation accessible in Praat* [Poster]. Speech Motor Control, Groningen, Netherlands.
- Buech, P., **Roessig, S.**, Pagel, L., Mücke, D., & Hermes, A. (2022, September 20). *ema2wav: Doing articulation by Praat* [Poster]. Interspeech, Incheon, Korea.
- Pagel, L., **Roessig, S.**, & Mücke, D. (2021, June 22). *Prominence relations and articulatory modifications in habitual and loud speech* [Talk]. Phonetics and Phonology in Europe, Barcelona, Spain (online).
- Pagel, L., **Roessig, S.**, & Mücke, D. (2020, December 16). *Modifications of tongue body kinematics as a focus marking strategy in German* [Poster]. 12th International Seminar on Speech Production, Rhode Island, USA (online).
- Roessig, S.**, & Mücke, D. (2019, June 18). *Prosodic variation in a multidimensional dynamic system* [Talk]. Phonetics and Phonology in Europe, Lecce, Italy.
- Roessig, S.**, & Mücke, D. (2019, September 19). *Dimensions of prosodic prominence in an attractor model* [Talk]. Interspeech, Graz, Austria.
- Pagel, L., **Roessig, S.**, & Mücke, D. (2019, September 26). *Prosodic strengthening in German: An investigation of tongue body kinematics* [Talk]. 15. Phonetik und Phonologie Tagung, Düsseldorf, Germany.
- Ritter, S., & Mücke, D. (2018, June 21). *The phonetics and phonology of focus marking – an integrated account* [Poster]. LabPhon 16, Lisbon, Portugal. **Awarded with the Best Student Paper Award.**
- Ritter, S., & Mücke, D. (2018, July 12). *Continuity and categoricity in prosodic prominence – the case of focus marking* [Talk]. 2nd International Conference “Prominence in Language,” Cologne, Germany.
- Ritter, S., & Roettger, T. B. (2014, May 23). *Speakers modulate noise-induced pitch according to intonational context* [Poster]. Speech Prosody, Dublin, Ireland.
- Ritter, S., & Grice, M. (2013, June 26). *The Role of Tonal Onglides in German Nuclear Pitch Accents* [Talk]. Phonetics and Phonology in Iberia, Lisbon, Portugal. **Awarded with the Best Student Paper Award.**

TEACHING

At the University of York

- Academic year 2023/24 Advanced Phonology (MSc module in phonological modelling and laboratory phonology with a strong focus on the integration of phonetics and phonology)
 Acoustic Phonetics and Phonological Analysis (BA/BSc module)
 Quantitative Methods (MSc/MA module in quantitative data analysis & statistics)

At the University of Cologne

- Winter 2021/22 International Paris-Cologne MA seminar “Variability in speech production and perception”. Co-taught with Doris Mücke (University of Cologne, Germany) and Ioana Chitoran (Paris Diderot, France). Part of the IVAC programme supported by the German Academic Exchange Service (DAAD).
- Winter 2018/19 MA seminar “Continuity in Phonology”. Co-taught with Martine Grice.
- Summer 2017 BA seminar “Grundlagen der Laborphonologie” (“Foundations of laboratory phonology”). Co-taught with Martine Grice.
- Winter 2013/14 MA seminar “Laboratory Phonology II”. Co-taught with Timo B. Roettger.

Guest lectures

- Spring 2023 “Autosegmental-metrical intonation analysis” in Abby Cohn’s class Phonology II at Cornell University.
- Summer 2020 “Categorical and continuous prosodic variation in an attractor-based model” in the seminar “Signals to Symbols” taught by Aviad Albert and Martine Grice at the University of Cologne.

SUPERVISION

At the University of York

- From Autumn 2023 Supervision of nine BA and MA students throughout their programme.
Member of the thesis advisory panel for two PhD students: Maram Alsofyani and Andrew Hennessey.

At the University of Cologne

- Summer 2023 Co-supervision of MA thesis with Doris Mücke: Karoline Marliani, “Eine akustische Analyse der Stimmimitation im Deutschen”.
- Since summer 2022 Co-supervision of PhD thesis with Doris Mücke: Lena Pagel, “Multimodality and interactive alignment in conversation”.
Awarded with a.r.t.e.s. Doctoral Scholarship and Mercator Scholarship for a Practice- and Profession-Oriented Doctorate in the Humanities at the University of Cologne, as well as an IPA Student Award at the International Congress of Phonetic Sciences 2023 (ICPhS).
- Summer 2021 Co-supervision of MA thesis with Doris Mücke: Lena Pagel, “Articulatory signatures of focus marking in habitual and loud speech”.
Awarded with special mention for Best Oral Student Presentation at Phonetics and Phonology in Europe 2021 (PaPE).
- Winter 2018/19 Co-supervision of BA thesis with Doris Mücke: Lena Pagel, “Eine artikulatorische Studie zur Prominenzmarkierung im Deutschen: Die Kinematik des Zungenrückens”.
Awarded with the Prize of the Faculty for Arts and Humanities at the University of Cologne (SoSe 2019), as well as the Best Poster Award at the Young Female Researchers in Speech Workshop in Graz, Austria, 2019.

ACADEMIC SERVICE

Reviewing activities

Grant proposal reviewer for the German Research Foundation (DFG).

Reviewer for the following journals & book publishers:

- Brain Sciences
- Computer Speech & Language
- Frontiers in Communication
- Glossa: a journal of general linguistics
- Journal of Linguistics
- Journal of Phonetics
- Journal of the Acoustical Society of America
- Languages
- Memory & Cognition
- PLOS ONE
- Scientific Reports
- Springer handbooks

Reviewer for the following conferences & workshops:

- International Congress of Phonetic Sciences (ICPhS)
- Interspeech
- LabPhon
- Speech Prosody Conference
- Speech Prosody and Beyond Workshop

University service

- Since 2023 Chair of Ethics Committee of the Department of Language and Linguistic Science at the University of York. This role comprises the organisation and design of the ethics application process in the department, as well as reviewing of proposals.
- 2019-2022 Initiator and part of the “sustainability working grouping” of the CRC “Prominence in Language” at the University of Cologne. This group works on guidelines to make the CRC more climate-friendly.

MEMBERSHIPS

- Association for Laboratory Phonology
- Cologne Center of Language Sciences
- Deutsche Gesellschaft für Sprachwissenschaft
- International Phonetic Association
- International Speech Communication Association

SOFTWARE & E-LEARNING RESOURCES

For open-source code, visit my GitHub page: www.github.com/sroessig.

ema2wav: Open-source software package developed in collaboration with Philipp Buech (Université Sorbonne Nouvelle, France). It converts data from electromagnetic articulography (EMA) into the WAV format. The resulting files can be displayed and analysed in programs like Praat. Online repository: www.github.com/sroessig/ema2wav.

Gestures: An interactive webpage based on R Shiny Apps to support learning about the inner workings of the gestural model of Articulatory Phonology. Go to web page: www.simonroessig.de/gestures.

FeatureInspector: A web app that helps students to better understand the concept of phonological features. Try out the web app: www.simonroessig.de/features.

GToBI training materials: Development and maintenance of the training materials for the transcription of German intonation using GToBI: www.gtobi.uni-koeln.de. Joint work with Martine Grice, Stefan Baumann, and Christine Röhr (University of Cologne, Germany)

COMPUTER SKILLS & RESARCH METHODS

Programming languages	Python, R, MATLAB, Java, JavaScript, Praat script
Web development	HTML, CSS, SQL, JSON, web servers
Operating systems	Linux Ubuntu, Windows 10/11, macOS
Word processing / Office	MS Office, \LaTeX , Markdown
Other computer tools	Command line / bash, git version control
Research methods	<ul style="list-style-type: none">▪ Kinematic data collection and processing (Electromagnetic articulography, EMA)▪ Acoustic recordings and signal processing▪ Interactive data elicitation methods (game-like scenarios, browser-based remote data collection scenarios)▪ Perception experiments (PsychoPy, SoSci, custom-built software)▪ Data visualization▪ Inferential statistical modelling: linear mixed effects models (frequentist and Bayesian), generalized additive models (GAM)▪ Machine learning tools