

## Research Interests

- Computational/mathematical linguistics, grammatical inference, artificial intelligence, building language corpora
- Phonology and its interface with morphology and syntax, tones, constructing grammar for understudied languages
- Natural language understanding, cognitive state, dialogue processing, speech analysis, conversational agents

## Projects

- **The Common Ground Corpus**
  - Creating a corpus for computational pragmatics by annotating unscripted dialogs from the CALLHOME corpus with common ground information from the perspective of the dialogs' participants.
  - Leading a team of undergraduate and graduate students with Prof. Owen Rambow.
  - Partially funded by The Defense Advanced Research Projects Agency.
- **Learning Finite-state Transducers for Morpho-phonology**
  - Developing algorithms that can infer finite-state models of morpho-phonological processes using linguistic representations.
  - Joint work with Prof. Jeffrey Heinz.
- **Documentation and Computational Modeling of Shupamem**
  - Conducting linguistic field research and analysis of Shupamem (Bantu).
  - Developing finite-state models of Shupamem's morpho-phonology with special attention to reduplication and tone.

## Education

- 2020 Aug - **PhD in Linguistics**, *Stony Brook University*  
present Advisor: Dr. Jeffrey Heinz
- 2020 Aug **MA in Computational Linguistics**, The Graduate Center, CUNY; Thesis: *"Tones In Shupamem Reduplication"*  
Advisor: Dr. Kyle Gorman
- 2013 Jun **MA in English Philology**, University of Warsaw; Thesis: *"An Optimality Theoretic analysis of contextual and contrastive nasalization in English and Polish"*  
Advisor: Dr. Bartłomiej Czaplicki
- 2011 Jun **BA in English Philology**, University of Warsaw

## Publications

- 2024 August Adil Soubki, John Murzaku, Arash Yousefi Jordehi, Peter Zeng, **Magdalena Markowska**, Seyed Abolghasem Mirroshandel, Owen Rambow. *Views Are My Own, but Also Yours: Benchmarking Theory of Mind Using Common Ground*. Findings of the Association for Computational Linguistics.
- Jan Hagay Schurr, Jason Kandybowicz, Abdoulaye Laziz Nchare, Tysean Bucknor, Xiaomeng Ma, **Magdalena Markowska**, and Armando Tapia. *Absence of Clausal Islands in Shupamem*. Languages 9.7: 1–35.

- 2023 Dec **Magdalena Markowska**, Mohammad Taghizadeh, Adil Soubki, Seyedabolghasem Mir-roshandel, Owen Rambow *Finding Common Ground: Annotating and Predicting Common Ground in Spoken Conversations*. Findings of Empirical Methods in Natural Language Processing.
- Jun **Magdalena Markowska** and Jeffrey Heinz. *Empirical and Theoretical Arguments for Using Properties of Letters for the Learning of Sequential Functions*. Proceedings of Machine Learning Research 1:1–5
- 2022 Sep John Murzaku, Peter Zeng, **Magdalena Markowska**, and Owen Rambow. *Predicting the Author's Presentation of Factuality*. Proceedings of the 29th International Conference on Computational Linguistics.
- Jul Jordan Kodner, Salam Khalifa, Khuyagbaatar Batsuren, Hossep Dolatian, Ryan Cotterell, Faruk Akkus, Antonios Anastasopoulos, Taras Andrushko, Aryaman Arora, Nona Atanalov, Gábor Bella, Elena Budianskaya, Yustinus Ghanggo Ate, Omer Goldman, David Guriel, Simon Guriel, Silvia Guriel-Agiashvili, Witold Kieraś, Andrew Krizhanovsky, Natalia Krizhanovsky, Igor Marchenko, **Magdalena Markowska**, Polina Mashkovtseva, Maria Nepomniashchaya, Daria Rodionova, Karina Scheifer, Alexandra Sorova, Anastasia Yemelina, Jeremiah Young, Ekaterina Vylomova. 2022. *SIGMORPHON–UniMorph 2022 Shared Task 0: Generalization and Typologically Diverse Morphological Inflection*. In Proceedings of the 19th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology, pages 176–203, Seattle, Washington. Association for Computational Linguistics.
- Jun Jennifer Tracey, Owen Rambow, Claire Cardie, Adam Dalton, Hoa Trang Dang, Mona Diab, Bonnie Dorr, Louise Guthrie, **Magdalena Markowska**, Smaranda Muresan, Vinodkumar Prabhakaran, Samira Shaikh and Tomek Strzalkowski. *BeSt: The Belief and Sentiment Corpus*. Proceedings of the 13th Edition of Language Resources and Evaluation Conference.
- 2021 Aug **Magdalena Markowska**, Jeffrey Heinz, and Owen Rambow. *Finite-state Model of Shupamem Reduplication*. Proceedings of the 18th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology.
- Qihui Xu, **Magdalena Markowska**, Martin Chodorow, and Ping Li. *Modeling Bilingual Lexical Processing through Code-Switching Speech: A Network Science Approach*. Frontiers in Psychology.
- Feb Qihui Xu, **Magdalena Markowska**, Martin Chodorow, and Ping Li. *A Network Science Approach to Bilingual Code-switching*, Proceedings of the Society for Computation in Linguistics: Vol. 4 , Article 3. DOI: <https://doi.org/10.7275/raze-1b18>.
- 2019 Nov Kyle Gorman, Arya D. McCarthy, Ryan Cotterell, Ekaterina Vylomova, MiikkaSilfverberg, and **Magdalena Markowska**. *Weird inflects but OK: making sense of morphological generation errors*. Proceedings of Conference on Computational Natural Language Learning, 140-151.

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## Awards

- 2022-3 **Junior Researcher Award**, *Institute for Advanced Computational Science, SBU*
- 2022 Jul **Full scholarship to attend the African Linguistics School (ALS 6)**, *Porto Novo, Benin*
- 2020-1 **New Recruit Award**, *Institute for Advanced Computational Science, SBU*

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## Teaching Experience

- 2024 Fall **Structure of English (LIN 320/527)**, *Primary Instructor*, Stony Brook University
- 2024 Spring **Languages in the US (LIN 200)**, *Teaching Assistant*, Stony Brook University

- 2023 Summer **Structure of English (LIN 320/527)**, *Primary Instructor*, Stony Brook University
- 2023-2 Fall **Language and Technology (LIN 120)**, *Teaching Assistant with recitations*, Stony Brook University
- **This course focuses on teaching Python.**
- 2021 Spring **Survey in Cognition and Perception (PSY 260)**, *Teaching Assistant*, Stony Brook University
- 2020 Fall **The Structure of an Uncommonly Taught Language (LIN 431)**, *Teaching Assistant with recitations*, Stony Brook University
- **This course focuses on creating formal grammar of low resource languages.**

## Talks

- 2023 Sep **Magdalena Markowska and Adil Soubki**, *Formal Representation of Common Ground in Dialogue*, TbiLLC
- Jul **Magdalena Markowska**, *Empirical and Theoretical Arguments for Using Properties of Letters for the Learning of Sequential Functions*, ICGI 16
- Apr **Magdalena Markowska**, *Learning phonological transformations with small data using sub-symbolic properties*, IACS Student Seminar
- 2022 Apr **Magdalena Markowska**, *The Common Ground Corpus*, IACS Student Seminar
- Magdalena Markowska**, *Tonal Polarity and Compound Nouns in Shupamem*, Annual Conference on African Linguistics (ACAL 53)
- 2021 Oct **Magdalena Markowska**, *Shupamem DP: tonal changes on nouns modified by adjectives*, Grassfields Bantu Working Group at McGill University
- Aug **Magdalena Markowska**, *Finite-state Model of Shupamem Reduplication*, SIGMORPHON 2021: 18th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology
- Mar **Magdalena Markowska**, *Finite-state Analysis of Tonal Reduplication in Shupamem*, IACS Student Seminar, Stony Brook University
- Magdalena Markowska**, *Tones in Shupamem Reduplication*, CIRCLE, The Graduate Center, CUNY

## Service

- 2023 Dec – present **ACL reviewer**, Association for Computational Linguistics Rolling Review
- 2022-4 **Vice President, IACS Student Association**, *Institute for Advanced Computational Science*, Stony Brook University
- 2021-2 **Social Media Manager**, *Linguistics Department*, Stony Brook University

## Technical Skills

Python, Praat, LaTeX

## Natural Languages

Polish (native), English (advanced), German (pre-intermediate), French (pre-intermediate), Shupamem (fieldwork)