#### Eric Rosen

#### Curriculum Vitae

Adjunct professor at the Department of Linguistics, University of British Columbia, since 2016.

## Academic Background

B.G.S. Simon Fraser University 1975
 M.A. Linguistics University of British Columbia 1996
 Ph. D. Linguistics University of British Columbia 2001

## Recent research position

Visiting postdoctoral fellow, Department of Cognitive Science, Johns Hopkins University, February 7th, 2018 - January 31st, 2021

Faculty sponsor: Dr. Paul Smolensky, Krieger-Eisenhower Professor, with cross appointment at Microsoft Research

# Research publications since 2016

- 2021. Inflectional paradigms as interacting systems. Proceedings of the 2021 meeting of the Society for Computation in Linguistics.
- 2021. Lexical strata and phonotactic perplexity minimization. Supplemental proceedings of the Annual Meeting on Phonology, UC Santa Cruz, September 2020. Also presented as a poster and extended abstract at the 2021 meeting of the Society for Computation in Linguistics.
- 2021. (Caitlin Smith, Charlie O'Hara Paul Smolensky and Eric Rosen)

  Emergent Gestural Scores in a Recurrent Neural Network Model of Vowel Harmony. Proceedings of the 2021 meeting of the Society for Computation in Linguistics.
- 2021. Compositional semantics emerges in neural networks solving math problems (Jacob Russin, Roland Fernandez, Hamid Palangi, Eric Rosen, Nebojsa Jojic, Paul Smolensky and Jianfeng Gao) To be presented at COGSCI 2021.
- 2019. Learning a model of gradient French liaison (with Paul Smolensky and Matthew Goldrick). Proceedings of the Annual Meeting on Phonology, Stony Brook University, October 2019.
- 2019. Predicting surface forms in complex inflectional paradigms through phonological constraints. Supplemental proceedings of the Annual Meeting on Phonology, Stony Brook University, October 2019.
- 2019. Learning complex inflectional paradigms through blended gradient inputs. Proceedings of the 2019 meeting of the Society for Computation in Linguistics, January 2019, NYU.
- 2018. Weak elements make strong predictions: Evidence for gradient input features from Sino-Japanese compound accent. Supplemental proceedings of the Annual Meeting on Phonology. October 5-7, 2018. UC San Diego.
- 2017. Predicting semi-regular patterns in morphologically complex words (An analysis of the semi-regularity of pitch accent in Japanese compound words) Linguistics Vanguard, 4(1). ROA 1339. http://roa.rutgers.edu/article/view/1729

2016. Predicting the unpredictable: capturing the apparent semi-regularity of rendaku voicing in Japanese through harmonic grammar, In proceedings of the 42nd annual meeting of the Berkeley Linguistic Society, February 5-7, 2016. ROA 1299. http://roa.rutgers.edu/article/view/1559

#### **Presentations**

2021. Human-like morphological prediction through implicative relations. Accepted as an oral presentation at the American International Morphology Meeting, August 26-29, 2021.

2021 (with Matthew Goldrick) Interaction of lexical strata in hybrid compound words through gradient phonotactics. To be presented at the Annual Meeting on Phonology, Toronto. 2021.

2018. Efficient representation of inflectional paradigms through harmonic grammar. Poster presented at the Mid-Atlantic Student Colloquium on Speech, Language and Learning, University of Maryland, May 2018.

2017. Predicting semi-regular Japanese accent patterns through gradient strengths of inputs Presented at the workshop "Strength in Grammar", University of Leipzig, November 10-12 2017.

2016. Japanese pitch accent as a dynamic computational system: global effects through strictly local interactions Conference paper presented at the Montreal-Ottawa-Laval-Toronto Phonology Workshop, Carleton University, Ottawa, March 19, 2016.

## Technical reports

2017. Geometrical Morphology Technical report on morphological paradigms in a new framework based on vectors in high-dimensional space. Work in equal joint collaboration with John Goldsmith, University of Chicago. Available on Arxiv at https://arxiv.org/pdf/1703.04481.pdf

# Research prior to 2016

Japanese Loanword Accentuation: Epenthesis and Foot Form Interacting through Edge-Interior Alignment, Proceedings of the Second International Conference on East Asian Linguistics Vancouver, British Columbia, Canada. Nov. 7-9, 2008.

https://www.sfu.ca/content/dam/sfu/linguistics/Gradlings/SFUWPL/Rosen\_E.pdf

Deriving the accentual behaviour of Japanese suffixes: a new OT account. Invited talk given at the Third Joint Meeting of the Kansai and Tokyo Phonology Research Groups (PAIK and TCP), February 21-22, 2008, Atami, Japan.

Review of *Voicing in Japanese*, van de Weijer, Jeroen, Kensuke Nanjo, and Tetsuo Nishihara, eds., Mouton de Gruyter. Berlin. *The Phonetician 97: 144-149. 2008*. http://www.isphs.org/Phonetician/Phonetician\_97-98.pdf

Systematic irregularity in Japanese rendaku: How the grammar mediates patterned lexical exceptions Canadian Journal of Linguistics, vol. 48. 2003.

### Personal History

Canadian-born. Canadian citizen.

Worked in the field of education before enrolling as a graduate student in the linguistics programme at the University of BC in 1994.

For family reasons, worked part-time at a non-linguistic job throughout graduate study years and full-time during the last year of completing Ph.D.

Also for family reasons, worked-full-time at a non-linguistic job from 2001 to 2014 after completing Ph.D.

Retired from non-linguistic employment in June 2014 and since then have become active in the field again.

Was appointed adjunct professor in the Department of Linguistics at the University of British Columbia in August 2016.

### Upgrading and Institutes 2014-2015

University of Washington Comp. Ling online courses Sept. 2014 through March 2015: took 3 online courses in computational linguistics:

Ling 473: Introduction to Computational Linguistics

Ling 570: Natural Language Processing

Ling 575: Introduction to Speech Technology

UBC machine learning, Spring 2015 Directed study in machine learning with Mark Schmidt, Associate Professor, Canada Research Chair in Large-Scale Machine Learning and Alfred P. Sloan Research Fellow, Department of Computer Science, UBC

### LSA Summer Institute in Chicago, July 6-31, 2015 Courses taken:

Gradient Symbolic Computation (Paul Smolensky and Matt Goldrick)

Unsupervised Learning of Linguistic Structure (John Goldsmith)

Computational Phonology (Jeffrey Heinz and Jason Riggle)

Computational Psycholinguistics (Roger Levy and Clinton Bicknell)

## Research positions 2016-2017

UC Santa Cruz Visiting researcher, Linguistics Research Center, UC Santa Cruz, January - March 2016.

Sponsor: Armin Mester, Professor, Department of Linguistics.

U Chicago Visiting postdoc<sup>1</sup>, University of Chicago, March to June 2016 and October 2016 through February 2017.

<sup>&</sup>lt;sup>1</sup>unofficial: my visit was approved by the department but the university was unable to issue me a J-1 visa because of lack of funding.

Sponsor: John Goldsmith, Edward Carson Waller Distinguished Service Professor, Departments of Linguistics, Computer Science and Physical Science Collegiate Division and Humanities Collegiate Division

## Ph. D. Thesis

Phonological processes interacting with the lexicon: variable and non-regular effects in Japanese phonology. Ph. D. Dissertation. University of B. C. 2001.

Supervisor: Dr. Douglas Pulleyblank.

Committee members: Dr. H. Davis, Dr. B. Gick.

University Examiner: Dr. J. Stemberger.

External Examiner: Dr. Armin Mester, University of California at Santa Cruz.

## Research Assistantship

Sept. 1994 - June 1995 Research Assistant, The Syntax and Phonology of Focus Project Supervisor: Dr. Michael Rochemont, Department of Linguistics, UBC

# Teaching: UBC Linguistics: phonology (200, 311) and syntax (201, 300, 301) courses

2000	Summer Session Term I	LING 200
2000	Winter Session Term I	LING $311$
2001	Summer Session Term I	LING 301
2002	Summer Session Term I	LING $300$
2002	Summer Session Term I	LING 301
2003	Winter Session Term II	LING 201
2003	Summer Session Term II	LING 301
2003	Winter Session Term I	${\rm LING~200}$
2004	Summer Session Term I	LING 311
2005	Summer Session Term I	LING 311
2006	Summer Session Term II	LING 311
2007	Summer Session Term I	LING 201
2007	Summer Session Term II	${\rm LING~200}$
2008	Summer Session Term I	LING 311
2010	Summer Session Term II	${\rm LING~300}$
2012	Summer Session Term II	${\rm LING~311}$