

# The MIT Press

## Journals

Sign In / Register

Books

Journals

Digital

Resources

About



Home | Computational Linguistics | List Article navigation of Issues | Volume 39 , No. 4 | Incremental, Predictive Parsing with Psycholinguistically Motivated Tree-Adjoining Grammar



Quarterly (March, June, September, December)

160pp. per issue

6 3/4 x 10

Founded: 1974

2018 Impact

Factor: 1.319

2018 Google

Scholar h5-index:

32

ISSN: 0891-2017

E-ISSN: 1530-9312

### Journal Resources

Editorial Info

Abstracting and Indexing

Release Schedule

Advertising Info

### Author Resources

Submission Guidelines

# Incremental, Predictive Parsing with Psycholinguistically Motivated Tree-Adjoining Grammar

Vera Demberg, Frank Keller and Alexander Koller

Posted Online November 20, 2013

[https://doi.org/10.1162/COLI\\_a\\_00160](https://doi.org/10.1162/COLI_a_00160)

© 2013 Association for Computational Linguistics

Computational Linguistics  
Volume 39 | Issue 4 | December 2013  
p.1025-1066

 **Download Options** >

**Abstract Full Text Authors**

Psycholinguistic research shows that key properties of the human sentence processor are incrementality, connectedness (partial structures contain no unattached nodes), and prediction

Publication  
 Agreement  
 Author Reprints

## Reader Resources

Rights and Permissions  
 Most Read  
 Most Cited

More About Computational Linguistics ▼

Metrics ▼



**11** Total citations

**3** Recent citations

**2.04** Field Citation Ratio

**n/a** Relative Citation Ratio

Open Access ▼



Computational Linguistics Computational Linguistics is Open Access. All content is freely available in electronic format (Full text HTML, PDF, and PDF Plus) to

(upcoming syntactic structure is anticipated). There is currently no broad-coverage parsing model with these properties, however. In this article, we present the first broad-coverage probabilistic parser for PLTAG, a variant of TAG that supports all three requirements. We train our parser on a TAG-transformed version of the Penn Treebank and show that it achieves performance comparable to existing TAG parsers that are incremental but not predictive. We also use our PLTAG model to predict human reading times, demonstrating a better fit on the Dundee eye-tracking corpus than a standard surprisal model.

## Forthcoming

### Most Read See More

**Lexicon-Based Methods for Sentiment Analysis** (13965 times)  
 Maite Taboada et al.  
 Computational Linguistics  
 Volume: 37, Issue: 2, pp. 267-307

**Computational Linguistics and Deep Learning** (10500 times)  
 Christopher D. Manning  
 Computational Linguistics  
 Volume: 41, Issue: 4, pp. 701-707

**Near-Synonymy and Lexical Choice** (3653 times)  
 Philip Edmonds et al.  
 Computational Linguistics  
 Volume: 28, Issue: 2, pp. 105-144

(Note that the Most Read numbers are based on the number of full text downloads over the last 12 months.)

### Most Cited See More

**Lexicon-Based Methods for Sentiment Analysis** (436 times)  
 Maite Taboada et al.  
 Computational Linguistics  
 Volume: 37, Issue: 2, pp. 267-307

**A Systematic Comparison of Various Statistical Alignment Models** (174 times)  
 Franz Josef Och et al.  
 Computational Linguistics  
 Volume: 29, Issue: 1, pp. 19-51

**Opinion Word Expansion and Target Extraction through Double Propagation** (147 times)  
 Guang Qiu et al.  
 Computational Linguistics  
 Volume: 37, Issue: 1, pp. 9-27



(Note that the Most Cited numbers are based on Crossref's [Cited-by service](#) and reflect citation information for the past 24 months.)





readers across the globe. All articles are published under a [CC BY-NC-ND 4.0 license](#). For more information on allowed uses, please view the CC license.

[Support OA at MITP](#)


**Download Options**

Favorite  Sign up for Alerts 


---

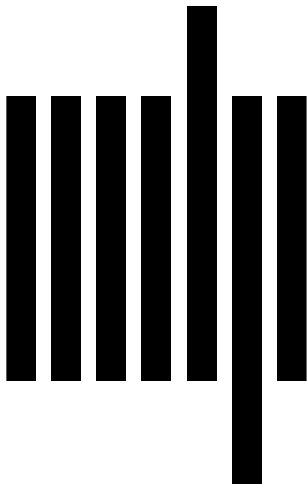
Download Citation  RSS TOC 

---

RSS Citation  Submit your article

---

[Support OA at MITP](#) 



Journals

Terms & Conditions

Privacy Statement

Contact Us

Books

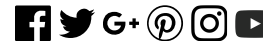
US

UK

Connect

One Rogers Street  
Cambridge MA  
02142-1209

Suite 2, 1 Duchess  
Street London,  
W1W 6AN, UK



© 2018 The MIT Press  
Technology Partner:  
[Atypon Systems, Inc.](#)  
[CrossRef Member](#)  
[COUNTER Member](#)  
The MIT Press colophon is registered in the U.S. Patent and Trademark Office.  
[Site Help](#)