

ACL 2019

**The 6th Workshop on Argument Mining
(ArgMining 2019)**

Proceedings of the Workshop

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Florence, Italy

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Introduction

Welcome to the 6th Workshop on Argument Mining (ArgMining 2019), collocated with ACL 2019 in Florence, Italy. The ArgMining workshop series is the premier research forum devoted to the mining, the assessment, and the generation of natural language arguments. Previous editions have been held annually at ACL (2014, 2016), NAACL (2015), and EMNLP (2017, 2018).

Argument mining, also known as argumentation mining, is an emerging research area of computational linguistics. At its heart, it involves the automatic identification of argumentative structures in free text, such as the premises, conclusions, and inference schemes of arguments as well as their interrelations and counter-considerations. To date, researchers have investigated argument mining on various registers including legal texts, scientific papers, product reviews, news editorials, Wikipedia articles, persuasive essays, tweets, and online discussions. Argument mining is tied to stance and sentiment analysis, since every argument carries a stance towards its topic, often expressed with sentiment. Recently, the quality assessment of arguments came into focus; it is considered as an important step to bring computational argumentation to practical impact.

While solutions to basic steps such as component segmentation and classification slowly become mature, many tasks remain largely unsolved, particularly when facing more open genres and topics. Success in computational argumentation requires joint efforts integrating NLP technology, theories of semantics and pragmatics, knowledge of discourse in application domains, artificial intelligence, information retrieval, argumentation theory, and computational models of argumentation.

Computational argumentation gives rise to various applications of great importance. It provides methods that can find and visualize the main pro and con arguments on a topic of interest in a corpus — or even in documents, blogs, and discussions on the web. In instructional and educational contexts, written and diagrammed arguments can be mined to convey and assess students' command of course material, while the retrieval of mined arguments is expected to play a salient role in the emerging field of conversational search. With IBM's Project Debater, technology based on computational argumentation recently received a lot of media attention.

The community around ArgMining is constantly growing. This year's edition of the workshop had 41 valid submissions (after 27 in 2017 and 32 in 2018), among these 22 full papers, 17 short papers, and two demo papers. The submissions came from institutions on five continents, 44% of the first authors being female. Five submissions were withdrawn due to acceptance at other venues, indicating the quality of submissions. Out of the remaining 36 papers, seven have been selected for oral presentation (19%) and 13 for poster presentation, resulting in an overall acceptance rate of 56%. Thanks to the hard work of 46 program committee members and four additional reviewers, all authors got three reviews on time.

14 full papers, five short papers, and one demo paper are included in the proceedings at hand. We were delighted to gain Professor Giovanni Sartor and Professor Marco Lippi as keynote speakers, experts on legal reasoning and its relation to Artificial Intelligence. The ArgMining 2019 workshop program also featured a best paper award, thankfully sponsored by IBM and selected by an independent committee, as well as a special event. Both the award and the event are announced on the official workshop website chaired by Roxanne El Baff: <https://argmining19.webis.de>.

Benno Stein and Henning Wachsmuth
(ArgMining 2019 co-chairs)

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Gregor Wiedemann, University of Hamburg

Invited Speakers:

Marco Lippi, University of Modena and Reggio Emilia
Giovanni Sartor, University of Bologna & European University Institute of Florence

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Workshop Program

Thursday, August 1, 2019

08:40–08:50 *Opening Remarks*

Session 1

08:50–09:50 *Keynote: Schemes for Legal Argumentation*
Giovanni Sartor and Marco Lippi

09:50–10:10 *Segmentation of Argumentative Texts with Contextualised Word Representations*
Georgios Petasis

10:10–10:30 *A Cascade Model for Proposition Extraction in Argumentation*
Yohan Jo, Jacky Visser, Chris Reed and Eduard Hovy

10:30–11:00 *Coffee Break*

Session 2

11:00–11:20 *Dissecting Content and Context in Argumentative Relation Analysis*
Juri Opitz and Anette Frank

11:20–11:40 *Aligning Discourse and Argumentation Structures using Subtrees and Redescription Mining*
Laurine Huber, Yannick Toussaint, Charlotte Roze, Mathilde Dargnat and Chloé Braud

11:40–12:00 *Transferring Knowledge from Discourse to Arguments: A Case Study with Scientific Abstracts*
Pablo Accuosto and Horacio Saggion

12:00–12:30 *Poster Lightning Talks*
All poster presenters

12:30–14:00 *Lunch Break*

Thursday, August 1, 2019 (continued)

14:00–15:30 Session 3: Demo and Posters

Demo *The Swedish PoliGraph: A Semantic Graph for Argument Mining of Swedish Parliamentary Data*
Stian Rødven Eide

Towards Effective Rebuttal: Listening Comprehension Using Corpus-Wide Claim Mining

Tamar Lavee, Matan Orbach, Lili Kotlerman, Yoav Kantor, Shai Gretz, Lena Dankin, Michal Jacovi, Yonatan Bilu, Ranit Aharonov and Noam Slonim

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Peter Potash, Adam Ferguson and Timothy J. Hazen

Gradual Argumentation Evaluation for Stance Aggregation in Automated Fake News Detection

Neema Kotonya and Francesca Toni

15:30–16:00 *Coffee Break*

Session 4

16:00–16:20 *Persuasion of the Undecided: Language vs. the Listener*

Liane Longpre, Esin Durmus and Claire Cardie

16:20–16:40 *Towards Assessing Argumentation Annotation - A First Step*

Anna Lindahl, Lars Borin and Jacobo Rouces

16:40–17:25 *Special Event*

Moderated by workshop chairs

17:25–17:30 *Best Paper Announcement*

Workshop chairs

17:30 *Closing Remarks*

