

ACL 2010

**Joint  
Fifth Workshop on  
Statistical Machine Translation  
and  
MetricsMATR**

**Proceedings of the Workshop**

15-16 July 2010  
Uppsala University  
Uppsala, Sweden

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## Introduction

The Joint Fifth Workshop on Statistical Machine Translation and MetricsMATR (WMT10) took place on July 15 and 16 in Uppsala, Sweden, immediately following the 48th conference of the Association for Computational Linguistics (ACL).

This is the sixth time this workshop has been held. The first time was in 2005 as part of the ACL 2005 Workshop on Building and Using Parallel Texts. In the following years the Workshop on Statistical Machine Translation was held at HLT-NAACL 2006 in New York City, USA, at ACL 2007 in Prague, Czech Republic, at ACL 2008 in Columbus, Ohio, USA, and at EACL 2009 in Athens, Greece. MetricsMATR was previously held in conjunction with AMTA 2008 in Honolulu, Hawaii, USA.

The focus of our workshop was to evaluate the state of the art in machine translation for a variety of languages. Recent experimentation has shown that the performance of machine translation systems varies greatly with the source language. In this workshop we encouraged researchers to investigate ways to improve the performance of machine translation systems for diverse languages.

Prior to the workshop, in addition to soliciting relevant papers for review and possible presentation we conducted a shared task that brought together machine translation systems for an evaluation on previously unseen data. The shared task also included a track for evaluation metrics and system combination methods.

The results of the shared task were announced at the workshop, and these proceedings also include an overview paper that summarizes the results, as well as provides information about the data used and any procedures that were followed in conducting or scoring the task. In addition, there are short papers from each participating team that describe their underlying system in some detail.

Like in previous years, we have received a far larger number of submission than we could accept for presentation. This year we have received 24 full paper submissions. 15 full papers were selected for oral presentation and one for poster presentation.

We received 7 short paper submissions for the evaluation task, 9 short paper submissions for the system combination task, and 30 short paper submissions for the translation task. Due to the large number of high quality submission for the full paper track, shared task submissions were presented as posters. The poster session gave participants of the shared task the opportunity to present their approaches.

The invited talk was given by Hermann Ney (RWTH Aachen).

We would like to thank the members of the Program Committee for their timely reviews. We also would like to thank the participants of the shared task and all the other volunteers who helped with the manual evaluations.

Chris Callison-Burch, Philipp Koehn, Christof Monz, Kay Peterson, and Omar Zaidan  
Co-Organizers



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Andreas Zollmann, Carnegie Mellon University (United States of America)

**Invited Speaker:**

Hermann Ney, RWTH Aachen

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# Conference Program

**Thursday, July 15, 2010**

8:45–9:00 Opening Remarks

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Qin Gao, Nguyen Bach and Stephan Vogel

9:25–9:50 *Fast Consensus Hypothesis Regeneration for Machine Translation*  
Boxing Chen, George Foster and Roland Kuhn

## **Shared Translation Task**

9:50–10:15 *Findings of the 2010 Joint Workshop on Statistical Machine Translation and Metrics for Machine Translation*  
Chris Callison-Burch, Philipp Koehn, Christof Monz, Kay Peterson, Mark Przybocki and Omar Zaidan

10:15–10:45 Boaster Session 1: Translation Task

10:45–11:00 Morning Break

## **Poster Session: Translation Task**

*LIMSI's Statistical Translation Systems for WMT'10*  
Alexandre Allauzen, Josep M. Crego, İlknur Durgar El-Kahlout and Francois Yvon

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**Thursday, July 15, 2010 (continued)**

*Hierarchical Phrase-Based MT at the Charles University for the WMT 2010 Shared Task*  
Daniel Zeman

12:30–14:00 Lunch

**Invited Talk**

14:00–15:00 Invited Talk by Hermann Ney

**Full Paper Session 2**

15:05–15:30 *Incremental Decoding for Phrase-Based Statistical Machine Translation*  
Baskaran Sankaran, Ajeet Grewal and Anoop Sarkar

15:30–16:00 Afternoon Break

**Full Paper Session 3**

16:00–16:25 *How to Avoid Burning Ducks: Combining Linguistic Analysis and Corpus Statistics for German Compound Processing*  
Fabienne Fritzing and Alexander Fraser

16:25–16:50 *Chunk-Based Verb Reordering in VSO Sentences for Arabic-English Statistical Machine Translation*  
Arianna Bisazza and Marcello Federico

16:50–17:15 *Head Finalization: A Simple Reordering Rule for SOV Languages*  
Hideki Isozaki, Katsuhito Sudoh, Hajime Tsukada and Kevin Duh

17:15–17:40 *Aiding Pronoun Translation with Co-Reference Resolution*  
Ronan Le Nagard and Philipp Koehn

**Friday, July 16, 2010**

**Shared Task Presentations**

9:00–10:00 Overview: MetricsMATR

10:00–10:30 Discussion

10:30–10:45 Boaster Session

10:45–11:00 Morning Break

**Poster Session: Full Paper**

*Jane: Open Source Hierarchical Translation, Extended with Reordering and Lexicon Models*

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*The Parameter-Optimized ATEC Metric for MT Evaluation*

Billy Wong and Chunyu Kit

12:30–14:00 Lunch



**Friday, July 16, 2010 (continued)**

**Full Paper Session 4**

- 14:00–14:25 *A Unified Approach to Minimum Risk Training and Decoding*  
Abhishek Arun, Barry Haddow and Philipp Koehn
- 14:25–14:50 *N-Best Reranking by Multitask Learning*  
Kevin Duh, Katsuhito Sudoh, Hajime Tsukada, Hideki Isozaki and Masaaki Nagata
- 14:50–15:15 *Taming Structured Perceptrons on Wild Feature Vectors*  
Ralf Brown
- 15:15–15:40 *Translation Model Adaptation by Resampling*  
Kashif Shah, Loïc Barrault and Holger Schwenk
- 15:40–16:00 Afternoon Break

**Full Paper Session 5**

- 16:00–16:25 *Integration of Multiple Bilingually-Learned Segmentation Schemes into Statistical Machine Translation*  
Michael Paul, Andrew Finch and Eiichiro Sumita
- 16:25–16:50 *Improved Translation with Source Syntax Labels*  
Hieu Hoang and Philipp Koehn
- 16:50–17:15 *Divide and Translate: Improving Long Distance Reordering in Statistical Machine Translation*  
Katsuhito Sudoh, Kevin Duh, Hajime Tsukada, Tsutomu Hirao and Masaaki Nagata
- 17:15–17:40 *Decision Trees for Lexical Smoothing in Statistical Machine Translation*  
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