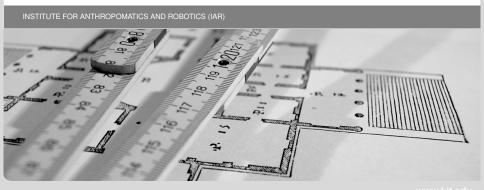


# **Chinese Preordering on Multiple Syntactic Levels**

Ge Wu | September 1, 2014



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## **Outline**



- Introduction
- **Foundations**
- Reordering Approach
- Results
- Conclusion
- Outlook



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Outlook

### Introduction



Goal & Motivation & Reason, etc.

X



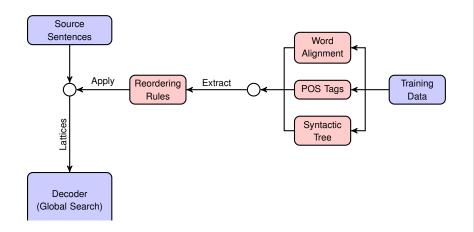
Conclusion

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Results

## **Preordering System**







## **Rreordering Rules**



- Short rules
- Long rules
- Tree rules

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Reordering Approach

Conclusion

#### **Chinese Word Orders**



- Adverbials
- Relative clauses
- Preposition phrases
- Questions
- Special sentence constructions
  - There aren't many people around that are really involved with architecture as clients.
  - Never would India have thought on this scale before.



# **Reordering Problems**



- Long distance position change
- Reordering on multiple syntactic levels

Reordering Approach

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## **Reordering Approach**



Rule Extraction & Application

X



Conclusion

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Results

#### Results



	BLEU Score	Improvement
Baseline	12.07	
+Short Rules	12.50	3.56 %
+Long Rules	12.99	7.62 %
+Tree Rules	13.38	10.85 %
+MLT Rules	13.81	14.42 %
Oracle Reordering	18.58	53.94 %
Long Rules	12.31	1.99 %
Tree Rules	13.30	10.19 %
MLT Rules	13.68	13.34 %

Table: BLEU score overview of English-to-Chinese system



Introduction

#### Results



	BLEU Score	Improvement
Baseline	21.80	
+Short Rules	22.90	5.05 %
+Long Rules	23.13	6.10 %
+Tree Rules	23.84	9.36 %
+MLT Rules	24.14	10.73 %
Oracle Reordering	26.80	22.94 %
Long Rules	22.10	1.38 %
Tree Rules	23.35	7.11 %
MLT Rules	23.96	9.91 %

Table: BLEU score overview of Chinese to English systems



Introduction

#### Conclusion



- Better translation quality
- Better syntactic structure
- Space for further improvement

#### **Outlook**



- Other rule types
- Better reordering approaches
- Vector presentation as feature
- Reordering with less information

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# Thank you for your attention



Conclusion

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Results

Outlook

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