

# Dependency Parsing exercises:

## Graph-based parsing II

Deadline: 03.07.2017. Please send the homework to [petit.jean@phil.hhu.de](mailto:petit.jean@phil.hhu.de) and [cranenburgh@phil.hhu.de](mailto:cranenburgh@phil.hhu.de) with subject "dependency homework" and an attachment named "ex11\_lastname1\_lastname2.pdf".

1. This exercise concerns the techniques and results shown in <http://aclweb.org/anthology/E06-1011.pdf>
  - (a) What are Secondary Parents and how can the approximate second-order non-projective algorithm shown in class be adapted to deal with them?
  - (b) Could the Chu-Liu/Edmonds' algorithm also be adapted in this regard? If you think so, give an idea of the procedure with a short example. If you do not, show how the algorithm presented in the paper works on an example of your choice.
  - (c) In terms of results, how does the approach compares to others?
2. Have a look at the following papers: [http://www.aclweb.org/anthology/Q13-1002\(1\)](http://www.aclweb.org/anthology/Q13-1002(1)) and [http://www.aclweb.org/anthology/Q14-1004\(2\)](http://www.aclweb.org/anthology/Q14-1004(2))
  - (a) How does the approach of the first paper compare with the ones seen in class (projective, non projective, higher order, etc.)?
  - (b) Give the general idea of the algorithm (first paper).
  - (c) Comment on the results of the second paper and explain how it improves the approach of the first one.