

# Master Seminar 1

## Computational Logic

Department of Computer Science  
University of Innsbruck

WS 2017/2018



# Overview

- Organisation
- Topics
- Schedule

## Important Information

- LVA 703605      master seminar 1      SE 2 – 5 ECTS
- <http://cl-informatik.uibk.ac.at/teaching/ws17/ms1/>

## Consultation Hours

- |                       |      |           |               |
|-----------------------|------|-----------|---------------|
| • Cezary Kaliszyk     | 3M12 | Tuesday   | 14:15 – 15:45 |
| • Aart Middeldorp     | 3M07 | Monday    | 12:00 – 13:30 |
| • Georg Moser         | 1N05 | Wednesday | 12:00 – 14:00 |
| • Vincent van Oostrom | 3M12 | Thursday  | 14:15 – 15:45 |
| • Christian Sternagel | 3M03 | Friday    | 14:15 – 15:45 |
| • René Thiemann       | 3M09 | Monday    | 13:00 – 15:00 |
| • Sarah Winkler       | 3M03 | Thursday  | 12:30 – 14:30 |

## Grading

- for master students:  
presentation, seminar report, active participation
- for PhD students:  
presentation, very active participation

## Presentations

- Wednesday 9:15 – 11:00 in 3W03
- **45 minutes** per presentation, including discussion

## Tasks

- for **master students**:
  - 1 submit (✉ AM) seminar report before **10 am on 26 February 2018**
- for **PhD students and CL researchers**:
  - 2 submit (✉ AM) title/abstract of presentation and **accompanying literature**
    - at most two papers per presentation
    - using exactly same HTML format as <http://cl-informatik.uibk.ac.at/teaching/ws17/ms1/topics.php>
  - strict deadline: **5 pm on Monday before seminar**
- 3 chair seminar (on rotating basis)

## Tasks (cont'd)

- for **everyone**:
  - 4 submit (✉ chair) slides (1 hour) before seminar
  - 5 submit (✉ AM) slides (shortly after presentation, with mistakes corrected and **without being prompted**)
  - 6 listen to talks (no laptops, no papers) and **ask questions**
- for **chairs**:
  - 7 connect own laptop to beamer for presentations

## Presentations

- ... should be addressed to all participants
- ... should be significantly different from earlier presentations
- ... topic for PhD students should be discussed beforehand with supervisor(s)

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## Topics

- AC-KBO CS
- Automating Logarithmic Amortised Complexity Analysis GM
- Alpha Avoidance VvO
- Completion for Logically Constrained Rewrite Systems SW
- Conditional Nonreachability CS
- Deep Learning for Logic CK
- Formalization of Social Choice Theory CK
- Multivariate Amortised Resource Analysis for Term Rewrite Systems GM
- Patterns from First- to Higher-Order VvO
- Proof Terms for Rewriting AM
- Quantified Boolean Formulas AM
- Rewriting Techniques for LLVM Expression Optimizations SW
- Root Isolation and Root Counting of Complex Roots RT



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|---------------|---------------------|---------------------|
| • October 18  | Cezary Kaliszyk     | Vincent van Oostrom |
| • November 8  | René Thiemann       | Thibault Gauthier   |
| • November 15 | Prathamesh          | Kenji Miyamoto      |
| • November 22 | Julian Parsert      | Michael Färber      |
| • November 29 | Evan Marzion        | Christian Sternagel |
| • December 6  | Alexander Maringele | Aart Middeldorp     |
| • December 13 | Sarah Winkler       | Yutaka Nagashima    |
| • January 10  | Christina Kohl      | Franziska Rapp      |
| • January 17  | Floran Meßner       | Bertram Felgenhauer |
| • January 24  | Alexander Lochmann  | David Obwaller      |