Computational Logic

Practical Logic and Automated Reasoning (specialisation seminar)

Georg Moser

Department of Computer Science @ UIBK

Winter 2016

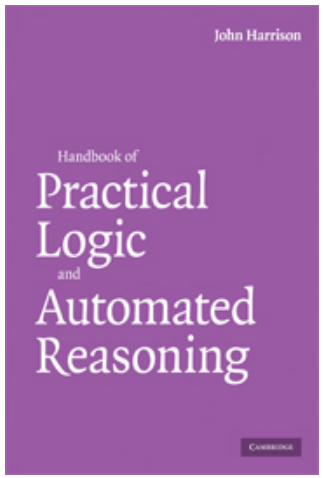
Organisation

Time and Place

Seminar	Friday, 10:15–11:00, SR 2	
	Friday, 10:15–11:45, SR 2	December 16
	Friday, 10:15–11:00, 3W04	November 11–25, January 27

Literature

John Harrison
Handbook of Practical Logic and Automated Reasoning
Cambridge University Press



Alwen Tiu says

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in short

- Harrison covers: propositional logic, first-order logic, equality, decidable problems, interactive theorem proving, limitations
- formal and practical development is intertwined, algorithms are given in OCaml (code is available)
- supplements LICS, provides additional foundation for Computational Logic, ITP, . . .
- model theoretic focus

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Schedule

Introduction

Oct. 7	1–22	GM	

Propositional Logic

Oct. 14	25–46	Patrick Summerer	Akihisa Yamada
Oct. 21	46–79	Samuel Frontull	René Thiemann
Oct. 28	79–111	Julian Parsert	Sebastiaan Joosten

First-order Logic

Nov. 4	118–158	Lukas Nocker	Michael Färber
Nov. 11	158–228	David Peer	Julian Nagele

Schedule (cont'd)

Equality

Nov. 18	235–249	Sebastian Waldhart	Alexander Maringele
Nov. 25	249–271	Maximilian Mayerl	Christian Sternagel
Dec. 2	271–303	Christoph Wirnsperger	Vincent van Ooostrom

Decidable Problems

Dec. 9	308–328	Anna-Lena Rädler	Aart Middeldorp
Dec. 16	328–352	Martin Pfeifhofer	Martin Avanzini
	352–380	Felix Schett	Kenji Miyamoto
Jan. 13	380–400	Claudia Laube	Cezary Kaliszyk
Jan. 20	400–414	Olivia Zellner	Georg Moser
Jan. 27	414–425	Daniel Gröber	Sarah Winkler
Feb. 3	425–450	Marc Kratzer	Michael Schaper

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Grade

the final grade will be based on

- presentation
- seminar report

Seminar Talks

- 30 min, 15 min discussion
- talks have to be given in English

Seminar Reports

- reports must be written in English
- we demand the use of Computational Logic LaTeX class
- 10–15 pages

btw: this is your work, not the work of your supervisor