Waling Through My Thesis

Necessary Liberal Preconditions: A Proof System

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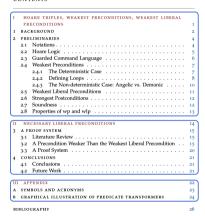
Agenda

1 Thesis Structure

- 2 Contribution
 - More on images
- 3 Summary

Overview: 3 Parts, 30 Pages, N Images

CONTENTS



Currently divided into three parts:

Part I Definitions, explanations, illustrations.

Part II Proposals, proofs, examples.

Part III Tables, figures, acronyms.

Part I: Hoare Triples, Weakest Preconditions, Weakest Liberal Preconditions

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Chapter 1: Background

- Convince that proof systems are important
- Show the structure of the thesis

Chapter 2: Preliminaries

- Table of Notations
- Definitions of Hoare Triples, GCL, wp, wlp, sp
 - Explain the use of Ifp and gfp
- Soundness: semantics of wp, wlp, sp
- Properties of wp and wlp that will be used in part II (forthcoming)

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Part II: Necessary Liberal Preconditions

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3	A PROOF SYSTEM	1
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4	CONCLUSIONS	2
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Chapter 3: A Proof System

- (Forthcoming) Literature review: the similar triples that have been studied
- Studying a special G such that $wlp.C.F \implies G$: establish wlp with angelic non-determinism using G and sp.
- Studying G in general: proving things negatively

Chapter 4: Conclusion

- Conclusion (forthcoming)
- Future work (forthcoming)

Part III: Appendix

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If you want to have multiple images, here is a template using minipage

- Or you can use whatever you are used to, but don't forget to include the packages!
- But using minipage, you can also easily have half image half words, or one third, or however you like.



- Now there is a game that you can play!
 - It is fun!
 - You can play it with me!
 - Also the graphic is so cute!

This is the summary section

- Intro
- Body
- End

Thank you!

References

- [DvGH17] Victor Dyseryn, Rob van Glabbeek, and Peter Höfner. Analysing mutual exclusion using process algebra with signals. arXiv preprint arXiv:1709.00826, 2017.
- [GR01] J.F. Groote and M.A. Reniers. *Algebraic process verification*, pages 1151–1208. Elsevier, Netherlands, 2001.
- [Hoa69] C. A. R. Hoare. An axiomatic basis for computer programming. *Commun. ACM*, 12(10):576–580, October 1969.