

SCHOOL OF COMPUTATION, INFORMATION AND TECHNOLOGY — INFORMATICS

TECHNISCHE UNIVERSITÄT MÜNCHEN

Master's Thesis in Informatics

Constructing Linear Types in Isabelle/HOL

Felix Krayer





SCHOOL OF COMPUTATION, INFORMATION AND TECHNOLOGY — **INFORMATICS**

TECHNISCHE UNIVERSITÄT MÜNCHEN

Master's Thesis in Informatics

Constructing Linear Types in Isabelle/HOL

Konstruktion linearer Typen in Isabelle/HOL

Author: Felix Krayer Examiner: Florian Bruse
Supervisor: Dmitriy Traytel, Tobias Nipkow

Submission Date: 13-11-2025



I confirm that this master's thesis is and material used.	my own work ar	nd I have document	ed all sources
Munich, 13-11-2025			Felix Krayer



Abstract

Contents

Acknowledgments							
A	stract	v					
1	Introduction 1.1 Section						
2	Background 2.1 MRBNFs	. 3					
3	Methodology (?) 3.1 Linearization of MRBNFs						
A	breviations	5					
Li	t of Figures	6					
Li	t of Tables	7					
Bi	pliography	8					

1 Introduction

1.1 Section

Citation test [Lam94].

Acronyms must be added in main.tex and are referenced using macros. The first occurrence is automatically replaced with the long version of the acronym, while all subsequent usages use the abbreviation.

E.g. \ac{TUM} , \ac{TUM} \Rightarrow Technical University of Munich (TUM), TUM For more details, see the documentation of the acronym package¹.

1.1.1 Subsection

See Table 1.1, Figure 1.1, Figure 1.2, Figure 1.3.

Table 1.1: An example for a simple table.

A	В	C	D
1	2	1	2
2	3	2	3



Figure 1.1: An example for a simple drawing.

¹https://ctan.org/pkg/acronym



Figure 1.2: An example for a simple plot.

```
SELECT * FROM tbl WHERE tbl.str = "str"
```

Figure 1.3: An example for a source code listing.

2 Background

2.1 MRBNFs

3 Methodology (?)

- 3.1 Linearization of MRBNFs
- 3.2 Examples

Abbreviations

TUM Technical University of Munich

List of Figures

1.1	Example drawing	1
1.2	Example plot	2
1.3	Example listing	2

List of Tables

11	Example table																	- 1
	HVamnia tania																	
1.1	Litallible table																	

Bibliography

[Lam94] L. Lamport. *LaTeX : A Documentation Preparation System User's Guide and Reference Manual.* Addison-Wesley Professional, 1994.