



#### **Masterarbeit D1513**

## Range-Doppler map upsampling for single channel chirp sequence radar using Deep Learning

Upsampling der Range-Doppler-Karte für einkanaliges Chirp-Sequenz-Radar unter Verwendung von Deep Learning

Author: Zheming Yin

Date of work begin: 01.October.2024 Date of submission: 31.March.2025

Supervisor: Sven Hinderer

Keywords: Keyword1, Keyword2 TBD

Abstract TBD

## **Contents**

1.	Intro	oduction	1
	1.1.	Range-Doppler map	1
	1.2.	Chirp sequence radar	1
	1.3.	Motivation	1
	1.4.	Overview of the state of the art	1
<b>A.</b>	Add	itionally	3
Lis	t of F	Cigures Cigures	5
Lis	st of T	Tables	7
Bil	oliogr	<b>caphy</b>	9

### 1. Introduction

#### 1.1. Range-Doppler map

Introduce the definition of the range-doppler map, how does it look like.

#### 1.2. Chirp sequence radar

Introduce the FMCW and our radar product.

#### 1.3. Motivation

#### 1.4. Overview of the state of the art

## A. Additionally

You may do an appendix

## **List of Figures**

## **List of Tables**

## **Bibliography**

# **Declaration** Herewith, I declare that I have developed and written the enclosed thesis entirely by myself and that I have not used sources or means except those declared. This thesis has not been submitted to any other authority to achieve an academic grading and has not been published elsewhere.

Stuttgart, TBD Date of sign.

Zheming Yin