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SPATIAL TEXTURES SAR DATA FOR FOREST MAPPING AND TARGET CHANGING DETECTION

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A todos que tornaram um pouco mais fácil a jornada até aqui

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"There's some good in this world, and it's worth fighting for."
— J.R.R. Tolkien

Resumo

Abstract

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List of Abbreviations and Acronyms

SAR	Radar de abertura sintética (Synthetic Aperture Radar)
ML	Machine Learning
DLR	Centro Aeroespacial Alemão (Deutsche Zentrum für Luft- und Raumfahrt)
InSAR	SAR Interferometry
PDF	Função Distribuição de Probabilidade (Probability Distribution Function)

Contents

1 Textural Applications for Change Detection in the CARABAS-II Dataset

1.1 Summary

In this chapter we will use the textural developed in previous chapters to create a change detection algorithm (CDA). The CDA will be assessed using the CARABAS-II image dataset, which is a set of images acquired by a Very High Frequency (VHF) Ultra Wideband (UWB) SAR system. The CDA is based on the UNET convolutional neural network (CNN) architecture and will use the textural information as additional inputs for image classification. It will be demonstrated that the use of textural information can improve the overall performance of the algorithm in terms of probability of detection and false alarm rate.

1.2 Introduction

Bibliography