

Coalgebraic effects and their cohandlers in programming languages

(Efekty koalgebraiczne oraz ich kohandlery
w językach programowania)

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Abstract

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Chapter 1

Introduction

1.1 Problem Analysis

1.2 Problem Statement

1.3 Thesis Outline

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Chapter 2

Background

2.1 Algebraic Effects

2.2 Categorical Setting for Universal Algebra

2.3 Comodels and Duality

Chapter 3

Proposed Solutions

3.1 Dynamic Constraints Checking

3.2 Linear Types

3.3 Data-Flow Analysis

3.4 Cohandlers as a Separate Construct

3.5 Related Work

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Coeffectful Programming with Cohandlers

4.1 Examples

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Chapter 5

Calculus of Freak language

5.1 Syntax

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Implementation

6.1 Abstract Syntax Trees

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Chapter 7

Conclusion

7.1 Summary

7.2 Future work