

Category Theory for Quantum Natural Language Processing



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Abstract

Contents

Introduction	1
I Computational Monoidal Categories	3
1 Diagrams: the premonoidal approach	5
2 Functors: evaluating diagrams	7
3 Rewrites: simplifying diagrams	9
4 From planar to hypergraph diagrams	11
II Quantum Natural Language Processing	13
5 Quantum processes as diagrams	15
6 Formal grammars with diagrams	17
7 Functorial learning	19
8 Sums, bubbles and gradients	21
Conclusion	21

Introduction

Part I

Computational Monoidal Categories

1

Diagrams: the premonoidal approach

test

2

Functors: evaluating diagrams

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Rewrites: simplifying diagrams

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From planar to hypergraph diagrams

Part II

Quantum Natural Language Processing

5

Quantum processes as diagrams

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Formal grammars with diagrams

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Functorial learning

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Sums, bubbles and gradients

Conclusion