

Testing functional agent-based simulations

A functional approach

Jonathan Thaler

Thorsten Altenkirch

jonathan.thaler@nottingham.ac.uk
thorsten.altenkirch@nottingham.ac.uk

University of Nottingham
Nottingham, United Kingdom

ABSTRACT

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TODO: this would be ideal to submit to a conference where i can also discuss functional programming

KEYWORDS

Agent-Based Simulation, Functional Reactive Programming, Property-Based Testing, Haskell

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1 INTRODUCTION

In this paper we investigate the potential of property-based testing which allows to directly express model-specifications in code and test them. We use Sugarscape and try to formulate the hypotheses in property tests. TODO: Build on ivans 2 papers. TODO: Implement a version working with ivans Haskell titan

main message: testing of functional abs is easier due to composability and controlled side effects. also property-based testing is much more expressive, allowing a specification based testing. Contribution: first to look into the potential of property-based testing for agent-based simulation verification.

2 RELATED WORK

TODO: [1]

TODO: [2] TODO: [3]

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