Concurrent ABS with STM

A functional approach

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ABSTRACT

KEYWORDS

Agent-Based Simulation, Software Transactional Memory, Functional Reactive Programming, Haskell

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1 INTRODUCTION

novelty in our case the use of FRP

The aim of this paper is:

This paper makes the following contributions: - FRP and STM - compares 3 approaches: non-concurrent, low-level locking, STM

The structure of the paper is:

2 BACKGROUND

3 RELATED WORK

TODO: hlogo masterthesis

4 CASE STUDY 1: SIR

- maps nicely to continuous time-semantics and state-transitions provided by FRP - STM results in considerable performance boost

5 CASE STUDY 2: SUGARSCAPE

- main difficulty: synchronous agent-interactions - STM: not clear yet but retry factor of 5

6 DISCUSSION

7 CONCLUSION

8 FURTHER RESEARCH

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