

Causal Block Diagram: compiler to LaTeX and DEVS

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Overview

- Introduction
- Theoretical background
- Design



Introduction



Introduction

Why?

- Clear and detailed description in LaTeX
- Verifying model using PypDEVS



Introduction

How?

- CBD to Intermediate Language
- Export to LaTeX / Transform to DEVS



Technical background



Technical background

Intermediate Language

- Dependency Graph model in AtomPM
- Construct Strong Components
- Solve algebraic loops



Technical background

CBD to DEVS mapping

- Strong Component -> Atomic Devs
- Links between blocks in component -> Internal
- Links between blocks outside component -> External

Technical background

Dynamic Rate Change (Optionally)

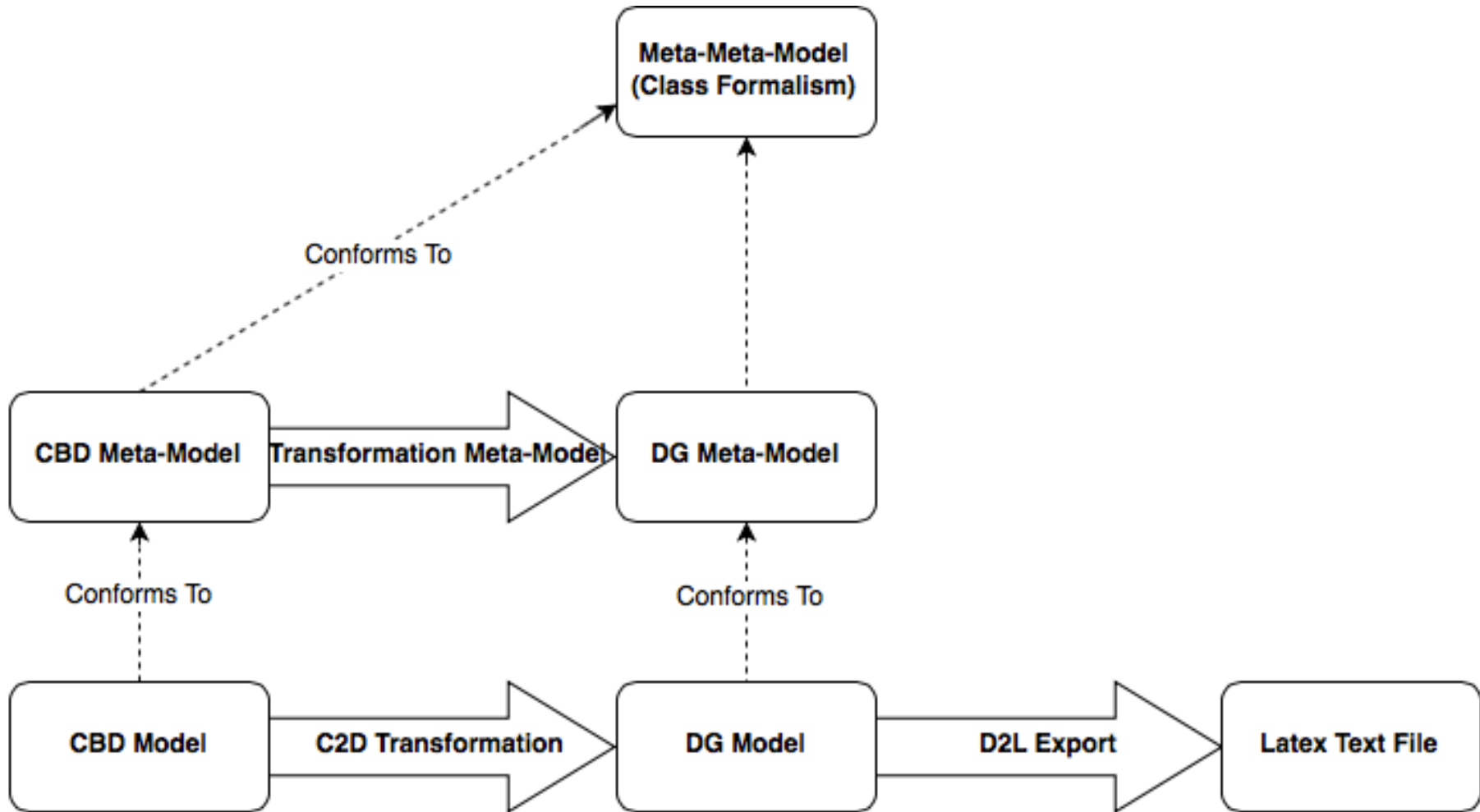
- Error = Strict Derivative - Flexible Derivative
- Based on error, change rate of blocks

Christis, N., 2012-2013. Research internship 2: Hybrid systems.

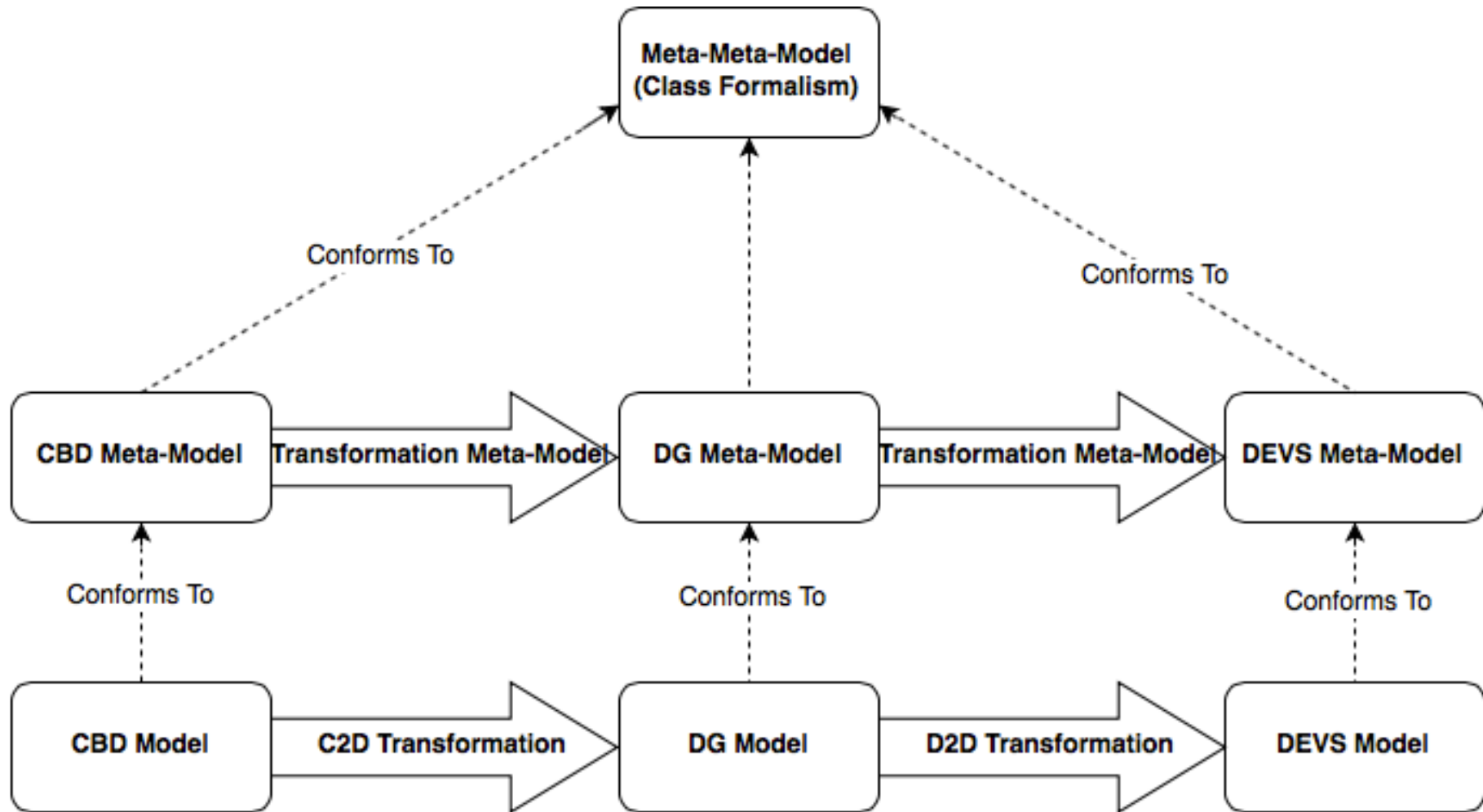


Design

Design



Design





Questions?