ANR Project 2015–2019

PRODAQ

Proof Systems for Data Queries

Kick-off Meeting

November 2nd, 2014
CONSORTIUM

Partner: Laboratoire Spécification et Vérification, École Normale Supérieure de Cachan

Participants: David Baelde & Sylvain Schmitz & PhD student
GENERAL CONTEXT

- XML format
- data trees
- XPath queries
- Satisfiability
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GENERAL CONTEXT

- XML format
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“artists with at least one record”

```
//a[@id=//r/@artist]
```

- Satisfiability
GENERAL CONTEXT

- XML format
- Data trees
- XPath queries
- Satisfiability
  - Optimization
  - Verification
OBJECTIVES: BRIDGES AND TOOLS

Consortium

Context

Objectives

- Data Trees
- Substructural Logics
- Data Automata
- Data Logics
- Counter Systems
- Proof Systems

models

logics

computation

implementation

decidability
complexity

verification

proof search

decidability
complexity

verification
OBJECTIVES: BRIDGES and TOOLS

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Data Trees

Data Logics

Data Automata

Substructural Logics

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Proof Systems

models

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implementation

Data Trees → Data Logics → Data Automata

Substructural Logics → Counter Systems

Proof Systems

 decidability complexity

verification

proof search

decidability complexity

OBJECTIVES: BRIDGES AND TOOLS

- Data Trees
- Data Logics
- Data Automata
- Substructural Logics
- Proof Systems
- Counter Systems
- Decisionability
- Complexity
- Verification
- Proof search
- Benchmarks
- Tool

Context

Consortium

Objectives
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