

*Dedicata a chi vi pare :-)* .



# *Ringraziamenti*

*Ringraziate chi vi pare...*



# Prefazione

Blablabla



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# Capitolo 1

## Introduzione

### 1.1 Stream Processing

### 1.2 Semantic Web

### 1.3 Stream Reasoning

#### 1.3.1 RDF Stream Processing

#### 1.3.2 RSP Engine - Existing Solutions

### 1.4 Contributions

#### 1.4.1 Heaven

#### 1.4.2 RSPEngine inside DSMS

#### 1.4.3 Experiments

### 1.5 Structure of this Thesis

Blablabla

Esempio di figura

Esempio di equazione

$$\dot{V}_4 = -k_v \lambda (z_1 - \varepsilon \lambda z_3)^T (z_1 - \varepsilon \lambda z_3). \quad (1.1)$$

Figura 1.1: Didascalia esempio di figura.



## Capitolo 2

### Heaven

#### 2.1 Requirements

#### 2.2 Architecture

##### 2.2.1 Streamer

##### 2.2.2 Result Collector

##### 2.2.3 RSP Engine

##### 2.2.4 Test Stand

##### 2.2.5 Analyser

#### 2.3 Implementation

##### 2.3.1 Streamer - RDF2RDFStream

##### 2.3.2 Result Collector

##### 2.3.3 RSP Engine - Esper Integration

##### 2.3.4 Test Stand

##### 2.3.5 Analyser

#### 2.4 Baselines

##### 2.4.1 Time Control

##### 2.4.2 Stream Model

##### 2.4.3 Reasoning

Esempio di figura

Figura 2.1: Didascalia esempio di figura.

Esempio di equazione

$$\dot{V}_4 = -k_v \lambda (z_1 - \varepsilon \lambda z_3)^T (z_1 - \varepsilon \lambda z_3). \quad (2.1)$$



# Capitolo 3

## RSPEngine

### 3.1 Architectural Variants

#### 3.1.1 Plain

#### 3.1.2 CEP on RDF

#### 3.1.3 CEP on Ontology RDF Stream

Blablabla

Esempio di figura

Esempio di equazione

$$\dot{V}_4 = -k_v \lambda (z_1 - \varepsilon \lambda z_3)^T (z_1 - \varepsilon \lambda z_3). \quad (3.1)$$

Figura 3.1: Didascalia esempio di figura.



# Capitolo 4

## Experiments

### 4.1 Experimental Model

#### 4.1.1 SOAK

#### 4.1.2 Step Linear Response

#### 4.1.3 Step Degree of Magnitude Response

### 4.2 Experimental Results

#### 4.2.1 SOAK

#### 4.2.2 Step Linear Response

#### 4.2.3 Step Degree of Magnitude Response



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