ΕΛΛΗΝΙΚΟ ΜΕΣΟΓΕΙΑΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ

ΣΧΟΛΗ ΜΗΧΑΝΙΚΩΝ

ΤΜΗΜΑ ΗΛΕΚΤΡΟΛΟΓΩΝ ΜΗΧΑΝΙΚΩΝ ΚΑΙ ΜΗΧΑΝΙΚΩΝ ΥΠΟΛΟΓΙΣΤΩΝ

ΠΡΟΣΚΛΗΣΗ ΣΕ ΔΗΜΟΣΙΑ ΠΑΡΟΥΣΙΑΣΗ

ΜΕΤΑΠΤΥΧΙΑΚΗΣ ΔΙΠΛΩΜΑΤΙΚΗΣ ΕΡΓΑΣΙΑΣ

Τίτλος

«Generating a benchmark for RDF stream processing»

του **Κασσάρα Εμμανουήλ**, μεταπτυχιακού φοιτητή του

Προγράμματος Μεταπτυχιακών Σπουδών «Μηχανικών Πληροφορικής»

Επιβλέπων Καθηγητής: Παπαδάκης Νικόλαος

Η παρουσίαση θα πραγματοποιηθεί την Πέμπτη 24/10/2024 στις 12:00

Σύνδεσμος εξ αποστάσεως παρακολούθησης: https://meet.google.com/hbq-iuoe-cwd

ΠΕΡΙΛΗΨΗ ΤΗΣ ΕΡΓΑΣΙΑΣ

RDF Stream Processing (RSP) has emerged as a crucial research area, driven by the increasing demand for real-time processing and analysis of continuous RDF data streams. Despite the progress in the field, it still faces challenges, especially regarding standardization, system performance, and benchmarking. This paper reviews the current landscape of RSP systems, with a particular emphasis on the evaluation of existing benchmarks. It examines these benchmarks in relation to key performance issues, such as parallel join execution, full-text search capabilities, and duplicate elimination, highlighting notable gaps in their ability to thoroughly assess system performance.

To address these deficiencies, a new benchmark was developed in Java, built on the RSP4J framework and utilizing the RSP-QL query language. This benchmark introduces additional evaluation criteria aimed at overcoming the limitations of current tools, providing a more comprehensive assessment of system performance across diverse scenarios. The ultimate goal of

this work is to contribute to advancements in RDF stream processing, supporting ongoing efforts toward standardization and enhancing the development of more effective benchmarking tools.