

# 13th International Workshop on Scalable Semantic Web Knowledge Base Systems (SSWS 2020)

At the 19th International Semantic Web Conference (ISWC2020),  
Athens, Greece November, 2020

## SSWS 2020 PC Co-chairs' Message

SSWS 2020 is the thirteenth edition of the successful Scalable Semantic Web Knowledge Base Systems (SSWS) workshop series. The SSWS series is focused on addressing scalability issues with respect to the development and deployment of knowledge base systems on the Semantic Web. This 13th workshop aimed at providing a forum for discussing application-oriented issues of Semantic Technologies, with the focus on systems that turn large volumes of real-world data into actionable knowledge at industry domains. This goal imposed significant scalability requirements on storage and processing systems and demands for reliable workflows to curate and validate data from various sources. By inviting contributions that integrate methods and results from research on RDF and Property Graphs, this workshop brought together researchers and practitioners to share their ideas regarding building and evaluating scalable knowledge base systems for the web.

This year we received 6 submissions. Each paper was carefully evaluated by three workshop Program Committee members. Based on these reviews, we accepted 5 papers for presentation.

We sincerely thank the authors for all the submissions and are grateful for the excellent work by the Program Committee members.

November 2020

Thorsten Liebig  
Achille Fokoue  
Zhe Wu

*Copyright © 2020 for the individual papers by the papers' authors. This volume and its papers are published under the Creative Commons License Attribution 4.0 International (CC BY 4.0).*

## Program Committee

Achille Fokoue  
IBM Watson Research Center, USA

Boris Motik  
University of Oxford, UK

Raghava Mutharaju  
Wright State University, Ohio, USA

Thorsten Liebig  
derivo GmbH, Germany

Kavitha Srinivas  
IBM Watson Research Center, USA

Mariano Rodríguez-Muro  
Google, USA

Adila A. Krisnadhi  
Universitas Indonesia

Zhe Wu  
eBay, USA

Ralf Möller  
University of Luebeck, Germany

Bernado Cuenca Grau  
University of Oxford, UK

## Table of Contents

Optimizing Approximate Membership Metadata in Triple Pattern Fragments for Clients and Servers .....	1
<i>Ruben Taelman, Joachim Van Herwegen, Miel Vander Sande, Ruben Verborgh</i>	
Revisiting RDF storage layouts for efficient query answering .....	17
<i>Maxime Buron, François Goasdoué, Ioana Manolescu, Tayeb Merabti, Marie-Laure Mugnier</i>	
Community-Based RDF Partitioning .....	33
<i>Fredah Banda, Boris Motik</i>	
Template Libraries for Industrial Asset Maintenance: A Methodology for Scalable and Maintainable Ontologies .....	49
<i>Daniel P. Lupp, Melinda Hodkiewicz, Martin G. Skjæveland</i>	
Using Semantic Technologies to Manage a Data Lake: Data Catalog, Provenance and Access Control .....	65
<i>Henrik Dibowski, Stefan Schmid, Yulia Svetashova, Cory Henson, Tuan Tran</i>	