

# SEDSEAL 2018

## *Semantics in the Deep: International Workshop on Semantic Analytics for Big Data*



*in conjunction with the*

**14<sup>th</sup> International Conference on Artificial  
Intelligence Applications and Innovations**

May 25-27, 2018



# Welcome to Rhodes!



# Workshop aims and scope

## Questions

- ▶ How can semantic technologies contribute towards **Big Data analysis**?
- ▶ What is the relationship between **Semantic Web** logical formalisms and automated- and **deep-learning techniques**?

## Open problems

- ▶ **Efficient processing** of big data ontologies
- ▶ Knowledge graphs **maintenance**
- ▶ **Ontology evolution** with machine learning

# Areas of interest

- ▶ Ontologies for **Big Data**
- ▶ Semantic applications in Big Data domains including:
  - ▶ open datasets, **Linked Data**, e-learning,
  - ▶ economics, insurance, sensors, bioinformatics
- ▶ Reasoning approaches for knowledge extraction
- ▶ **Ontology learning** and topic modeling
- ▶ NLP and **word embedding**
- ▶ Semantic **lakes**
- ▶ Semantic deep learning
  - ▶ Ontologies as training sets
  - ▶ Ontology evolution and learning feedback

# Invited keynote

## How to build scalable SPARQL engines for Big RDF data

**Prof. Panos Kalnis**

Computer, Electrical and Mathematical  
Science and Engineering Division  
King Abdullah University of Science  
and Technology (KAUST)



<http://web.kaust.edu.sa/faculty/PanosKalnis/>



# Program

## **14:30-15:30 SEDSEAL Workshop Keynote Session:**

Chair: Dimitrios Koutsomitropoulos

KEYNOTE SPEAKER: PANOS KALNIS, KING ABDULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

TITLE: HOW TO BUILD SCALABLE SPARQL ENGINES FOR BIG RDF DATA

## **15:30-16:20 SEDSEAL Workshop Session: (SEDSEAL)**

Chair: Dimitrios Koutsomitropoulos

Ilias Kalamaras, Nikolaos Kaklanis, Kostas Votis, Dimitrios Tzovaras

Towards Big Data Analytics in Large-scale Federations of Semantically Heterogeneous IoT Platforms (full)

Vaishali Nagpure, Cynthia Hood, Stephanie Vaccaro

Semantic Models for Labeling Spectrum Data (full)

## Workshop Chairs

**Dr. Dimitrios A. Koutsomitropoulos**

University of Patras, Greece



**Prof. Spiridon D. Likothanassis**

University of Patras, Greece



## Program Committee

- ▶ Andreas Andreou, Cyprus  
University of Technology, Cyprus
- ▶ Christos Alexakos, University of  
Patras, Greece
- ▶ Dimitrios Koutsomitropoulos,  
University of Patras, Greece
- ▶ Dimitrios Tsolis, University of  
Patras, Greece
- ▶ Dimitrios Tzovaras, CERTH/ITI,  
Greece
- ▶ Efstratios Georgopoulos,  
Technological Institute of  
Kalamata, Greece
- ▶ Filipe Portela, University of Minho, Spain
- ▶ Jouni Tuominen, University of Helsinki,  
Finland
- ▶ Konstantinos Votis, CERTH/ITI, Greece
- ▶ Miguel-Angel Sicilia, University of Alcala,  
Spain
- ▶ Minjuan Wang, San Diego State  
University, US
- ▶ Spiridon Likothanassis, University of  
Patras, Greece
- ▶ Vassilis Plagianakos, University of  
Thessaly, Greece

# Journal Special Issue

- ▶ **Confirmed** special issue on SEDSEAL theme
- ▶ **Data** journal (MDPI)  *data*
- ▶ Open access (fee waiver for papers submitted to the SI)
- ▶ Guest Editors:
  - Dr. Dimitrios A. Koutsomitropoulos**  
University of Patras, Greece
  - Prof. Spiridon D. Likothanassis**  
University of Patras, Greece
  - Prof. Panos Kalnis**  
KAUST, Saudi Arabia
- ▶ **Totally open** call
  - ▶ Out in June, 2018
- ▶ Submissions expected by early October 2018
- ▶ Should submit abstract a month earlier



# Thank you for your participation in SEDSEAL2018!

*Your feedback is welcome!*

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[likothan@ceid.upatras.gr](mailto:likothan@ceid.upatras.gr)

**SEDSEAL home page:**

<https://sedseal2018.ceid.upatras.gr>