

# Ontology Matching

OM-2019

Proceedings of the ISWC Workshop

## Introduction

Ontology matching<sup>1</sup> is a key interoperability enabler for the semantic web, as well as a useful tactic in some classical data integration tasks dealing with the semantic heterogeneity problem. It takes ontologies as input and determines as output an alignment, that is, a set of correspondences between the semantically related entities of those ontologies. These correspondences can be used for various tasks, such as ontology merging, data translation, query answering or navigation over knowledge graphs. Thus, matching ontologies enables the knowledge and data expressed with the matched ontologies to interoperate.

The workshop had three goals:

- To bring together leaders from *academia*, *industry* and *user institutions* to assess how academic advances are addressing real-world requirements. The workshop strives to improve academic awareness of industrial and final user needs, and therefore, direct research towards those needs. Simultaneously, the workshop serves to inform industry and user representatives about existing research efforts that may meet their requirements. The workshop also investigated how the ontology matching technology is going to evolve.
- To conduct an extensive and rigorous evaluation of ontology matching and instance matching (link discovery) approaches through the OAEI (Ontology Alignment Evaluation Initiative) 2019 campaign<sup>2</sup>.
- To examine similarities and differences from other, old, new and emerging, techniques and usages, such as process matching, web table matching or knowledge embeddings.

The program committee selected 3 long and 2 short submissions for oral presentation and 7 submissions for poster presentation. 20 matching systems participated in this year's OAEI campaign. Further information about the Ontology Matching workshop can be found at: <http://om2019.ontologymatching.org/>.

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<sup>1</sup><http://www.ontologymatching.org/>

<sup>2</sup><http://oaei.ontologymatching.org/2019>

**Acknowledgments.** We thank all members of the program committee, authors and local organizers for their efforts. We appreciate support from the Trentino as a Lab<sup>3</sup> initiative of the European Network of the Living Labs<sup>4</sup> at Trentino Digitale<sup>5</sup>, the EU SEALS (Semantic Evaluation at Large Scale) project<sup>6</sup>, the EU HOBBIT (Holistic Benchmarking of Big Linked Data) project<sup>7</sup>, the Pistoia Alliance Ontologies Mapping project<sup>8</sup> and IBM Research<sup>9</sup>.



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*December 2019*

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<sup>3</sup><http://www.taslab.eu>

<sup>4</sup><http://www.openlivinglabs.eu>

<sup>5</sup><http://www.trentinodigitale.it>

<sup>6</sup><http://www.seals-project.eu>

<sup>7</sup><https://project-hobbit.eu/challenges/om2019/>

<sup>8</sup><http://www.pistoiaalliance.org/projects/ontologies-mapping/>

<sup>9</sup>[research.ibm.com](http://research.ibm.com)

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# Table of Contents

## Long Technical Papers

Matching ontologies for air traffic management: a comparison and reference alignment of the AIRM and NASA ATM ontologies <i>Audun Vennesland, Richard M. Keller, Christoph G. Schuetz, Eduard Gringinger, Bernd Neumayr</i> .....	1
Multi-view embedding for biomedical ontology matching <i>Weizhuo Li, Xuxiang Duan, Meng Wang, XiaoPing Zhang, Guilin Qi</i> .....	13
Identifying mappings among knowledge graphs by formal concept analysis <i>Guowei Chen, Songmao Zhang</i> .....	25

## Short Technical Papers

Hypernym relation extraction for establishing subsumptions: preliminary results on matching foundational ontologies <i>Mouna Kamel, Daniela Schmidt, Cássia Trojahn, Renata Vieira</i> .....	36
Generating corrupted data sources for the evaluation of matching systems <i>Fiona McNeill, Diana Bental, Alasdair Gray, Sabina Jędrzejczyk, Ahmad Alsadeeqi</i> .....	41

## OAEI Papers

Results of the Ontology Alignment Evaluation Initiative 2019 <i>Alsayed Algergawy, Daniel Faria, Alfio Ferrara, Irini Fundulaki, Ian Harrow, Sven Hertling, Ernesto Jiménez-Ruiz, Naouel Karam, Abderrahmane Khat, Patrick Lambrix, Huanyu Li, Stefano Montanelli, Heiko Paulheim, Catia Pesquita, Tzanina Saveta, Pavel Shvaiko, Andrea Splendiani, Elodie Thiéblin, Cássia Trojahn, Jana Vataščinová, Ondřej Zamazal, Lu Zhou</i> .....	46
AnyGraphMatcher submission to the OAEI knowledge graph challenge 2019 <i>Alexander Lütke</i> .....	86
ALIN results for OAEI 2019 <i>Jomar da Silva, Carla Delgado, Kate Revoredo, Fernanda Baião</i> .....	94
AML and AMLC results for OAEI 2019 <i>Daniel Faria, Catia Pesquita, Teemu Tervo, Francisco M. Couto, Isabel F. Cruz</i> .....	101
AROA results for 2019 OAEI <i>Lu Zhou, Michelle Cheatham, Pascal Hitzler</i> .....	107
CANARD complex matching system: results of the 2019 OAEI evaluation campaign <i>Elodie Thiéblin, Ollivier Haemmerlé, Cássia Trojahn</i> .....	114
DOME results for OAEI 2019 <i>Sven Hertling, Heiko Paulheim</i> .....	123
EVOCROS: results for OAEI 2019 <i>Juliana Medeiros Destro, Javier A. Vargas, Julio Cesar dos Reis, Ricardo da S. Torres</i> .....	131
FCAMap-KG results for OAEI 2019 <i>Fei Chang, Guowei Chen, Songmao Zhang</i> .....	138
FTRLIM results for OAEI 2019 <i>Xiaowen Wang, Yizhi Jiang, Yi Luo, Hongfei Fan, Hua Jiang, Hongming Zhu, Qin Liu</i> .....	146
Lily results for OAEI 2019 <i>Jiangheng Wu, Zhe Pan, Ce Zhang, Peng Wang</i> .....	153
LogMap family participation in the OAEI 2019 <i>Ernesto Jiménez-Ruiz</i> .....	160

ONTMAT1: results for OAEI 2019 <i>Saida Gherbi, Mohamed Tarek Khadir</i> .....	164
POMap++ results for OAEI 2019: fully automated machine learning approach for ontology matching <i>Amir Laadhar, Faiza Ghazzi, Imen Megdiche, Franck Ravat,</i> <i>Olivier Teste, Faiez Gargouri</i> .....	169
SANOM results for OAEI 2019 <i>Majid Mohammadi, Amir Ahooye Atashin, Wout Hofman, Yao-Hua Tan</i> .....	175
Wiktionary matcher <i>Jan Portisch, Michael Hladik, Heiko Paulheim</i> .....	181

## Posters

MultiKE: a multi-view knowledge graph embedding framework for entity alignment <i>Wei Hu, Qingheng Zhang, Zequn Sun, Jiacheng Huang</i> .....	189
MTab: matching tabular data to knowledge graph with probability models <i>Phuc Nguyen, Natthawut Kertkeidkachorn, Ryutaro Ichise, Hideaki Takeda</i> .....	191
Generating referring expressions from knowledge graphs <i>Armita Khajeh Nassiri, Nathalie Pernelle, Fatiha Saïs</i> .....	193
Semantic table interpretation using MantisTable <i>Marco Cremaschi, Anisa Rula, Alessandra Siano, Flavio De Paoli</i> .....	195
Towards explainable entity matching via comparison queries <i>Alina Petrova, Egor V. Kostylev, Bernardo Cuenca Grau, Ian Horrocks</i> .....	197
Discovering expressive rules for complex ontology matching and data interlinking <i>Manuel Atencia, Jérôme David, Jérôme Euzenat, Liliana Ibanescu, Nathalie Pernelle, Fatiha Saïs, Elodie Thiéblin, Cássia Trojahn</i> .....	199
Decentralized reasoning on a network of aligned ontologies with link keys <i>Jérémy Lhez, Chan Le Duc, Thanh Dong, Myriam Lamolle</i> .....	201



