

# Curriculum Vitæ et Studiorum

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## Bibliometrics

Source	<i>h</i> -Index	Citations
Google	<b>49</b>	8831
Scopus	34	4582

<http://scholar.google.it/citations?user=imbD9RkAAAAJ>

<http://www.scopus.com/authid/detail.uri?authorId=12760566600>

## Top Italian Computer Scientists Rank

Rank **93**

[http:](http://www.topitalianscientists.org/TIS_HTML/Top_Italian_Scientists_Computer_Sciences.htm)

[//www.topitalianscientists.org/TIS\\_HTML/Top\\_Italian\\_Scientists\\_Computer\\_Sciences.htm](http://www.topitalianscientists.org/TIS_HTML/Top_Italian_Scientists_Computer_Sciences.htm)

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# 1 Topics of Interests, Education & Scientific Career

## 1.1 Topics of Interests

### 1. Artificial Intelligence

#### (a) Knowledge Representation Reasoning

- i. Semantic Web Technologies and Languages (RDFS, OWL, RIF)
- ii. Ontology-based
  - A. Multi-Criteria Decision Making
  - B. Top-k Retrieval
  - C. Multimedia Information Retrieval
- iii. Knowledge Representation and Reasoning Formalisms
  - A. Uncertainty and Fuzzy Logics for the Semantic Web
  - B. Description Logics, Logic Programming, Answer Set Programming
  - C. Non-Monotonic Reasoning

#### (b) Statistical Relational Learning

- i. Ontology-based Machine Learning

### 2. Information Retrieval

- (a) Distributed Information Retrieval
- (b) Schema Matching
- (c) Collaborative and Information Filtering
- (d) Rank Aggregation
- (e) User Profiling

### 3. Mathematics

- (a) Fixed-point Theory of Set Valued Functions
- (b) Equational Systems over Lattices

## 1.2 Education

1. (06/1999): PhD in Computer Science at the University of Dortmund, Germany. Thesis: *Foundations of a Logic based approach to Multimedia Document Retrieval*, supervised by Prof. Norbert Fuhr
2. (10/1990): MSc in Computer Science at the University of Pisa, Italy. Thesis: *Default Reasoning in Frame-based Languages*, supervised by Dr. Fabrizio Sebastiani

## 1.3 Scientific Career

1. (02/2020-): Director of Research with permanent position at ISTI-CNR (l'Istituto di Scienza e Tecnologie dell'Informazione del Consiglio Nazionale delle Ricerche)
2. Habilitation as Full Professor (Abilitazione Scientifica Nazionale, ASN, I Fascia). Sector 01/B1 Computer Science. Valid for 10 April 2017 - 10 April 2023.
3. Habilitation as Associate Professor (Abilitazione Scientifica Nazionale, ASN, II Fascia). Sector 01/B1 Computer Science. Valid for 19 Jan 2015 - 19 Jan 2021.
4. (01/2007-01/2020): Senior Researcher with permanent position at ISTI-CNR (l'Istituto di Scienza e Tecnologie dell'Informazione del Consiglio Nazionale delle Ricerche)
5. (09/2001-12/2006): Researcher with permanent position at ISTI-CNR (l'Istituto di Scienza e Tecnologie dell'Informazione del Consiglio Nazionale delle Ricerche)
6. (11/1994 - 09/2001): Researcher with temporary position at ISTI-CNR (l'Istituto di Scienza e Tecnologie dell'Informazione del Consiglio Nazionale delle Ricerche)

## 2 Scientific Activities

### 2.1 Project Coordinations and Participations

Table 1 summarizes the project I worked for (Name), the role I had for (C - Coordination, SP -Specific Responsibilities, P -Participation), the total budget of the project (Total Budget), the budget of the local unit I worked for (Local Budget), the duration of the project (Duration) and the total numbers of partners (Partners). The budgets are expressed in euro.

Table 1: Project Activity Summary.

Name	C	SP	P	Total Budget	Local Budget	Duration	Partners
Sogei		*	*	195000	36000	01.04.2012 - 01.05.2013	4 IT
LoDeN		*	*	23000	5600	22.03.2010 - 23.03.2013	4 IT
ISA		*	*	33600	33600	01.07.2009 - 01.10.2010	2 IT
KRDB		*	*	3927	3927	15.03.2009 - 14.05.2009	2 IT
DSSW	*	*	*	51000	51000	01.12.2003 - 31.01.2005	1 IT
Cyclades	*	*	*	2151524	415949	01.02.2001 - 31.07.2003	5 EU
Scholnet			*	1898640	343780	01.11.2000 - 30.04.2003	7 EU
EUROgatherer		*	*	2312613	489760	01.04.1998 - 31.01.2000	7 EU
Fermi			*	960000	276000	04.01.1994 - 31.12.1996	4 EU
Delos			*	444000	444000	01.03.1996 - 31.05.1999	? EU
Simos			*	240000	240000	01.06.1996 - 31.05.1999	? EU
<i>Total</i>	11	2	7	11	8313304	2303616	-
C	Coordination						
SP	Specific Responsibilities						
P	Participation						

#### 2.1.1 Project Coordinations

- (CYCLADES, 2001-2003): Project CYCLADES “An Open Collaborative Virtual Archive Environment”, EU FP5-IST Project No IST-2000-25456.  
Role: Scientific Project Leader  
[http://cordis.europa.eu/projects/rcn/58091\\_en.html](http://cordis.europa.eu/projects/rcn/58091_en.html)
- (DSSW, 2003-2004): Project Curiosity Driven: “Distributed Search in the Semantic Web”, funded by ISTI-CNR, Istituto di Scienze e Tecnologie dell’Informazione del Consiglio Nazionale delle Ricerche.  
Role: Project Leader

#### 2.1.2 Specific Responsibilities in Projects

- (SOGEI 2012-2013): Project SOGEI “A conceptual ontology for the Italian Agency of Finance”, 2012.  
Role: Project Leader for ISTI-CNR.
- ISA S.p.A. (2009-2010) Advising for Project Jinside++, funded by Regione Lazio.  
Role: Project Leader for ISTI-CNR.
- (KRDB 2009) University of Bolzano. Advising for Project KRDB, funded by University of Bolzano.  
Role: Project Leader for ISTI-CNR.
- (LoDeN 2010-2011): Project LoDeN “Nonmonotonic Description Logics: Complexity and implementation”, PRIN 2008.  
Role: project leader for ISTI-CNR.
- (EUROgatherer, 1998-2000): Project EUROgatherer “Personalised Information Gathering System”, EU TELEMATICS/IE Project No 8011.  
Role: Work Package leader.  
<http://www.is.inf.uni-due.de/projects/eurogatherer>

### 2.1.3 Project Participations

1. (SCHOLNET, 2000-2003): Project SCHOLNET “A Digital Library Testbed to Support Networked Scholarly Communities”, EU FP5-IST Project No IST-1999-20664. Role: Participation.  
[http://cordis.europa.eu/projects/rcn/53580\\_en.html](http://cordis.europa.eu/projects/rcn/53580_en.html)
2. (DELOS, 1996-1999): Working Group DELOS, “ERCIM Digital Library”, EU ESPRIT/Long Term Research Working Group No. 21057. Role: Project participation.  
<https://cordis.europa.eu/esprit/src/21057.htm>
3. (SIMOS, 1996-1999): Working Group SIMOS “Supporting Interactive Multimedia On-Line Services”, EU ESPRIT/Long Term Research Working Group No. 20979. Role: Project participation.  
<https://cordis.europa.eu/esprit/src/20979.htm>
4. (FERMI, 1994-1997): Project FERMI “Formalisation and Experimentation in the Retrieval of Multimedia Information”, EU ESPRIT/Basic Research Actions Project No 8134. Role: Project participation.  
[http://cordis.europa.eu/projects/rcn/22022\\_en.html](http://cordis.europa.eu/projects/rcn/22022_en.html)

## 2.2 Conference Organisational Activities

### 2.2.1 Chairing

1. A2IC 2020 (Artificial Intelligence International Conference, Chair)
2. ESWC 2017 (14th International Semantic Web Conference, Reasoning Track Chair)
3. RR 2016 (The 10th International Conference on Web Reasoning and Rule Systems, General Chair)
4. FUZZ-IEEE 2015 (IEEE International Conference on Fuzzy Systems, Fuzzy Sets in Web Information Systems, Fuzzy Sets in Web Information Systems Track Chair)
5. SUM 2014 (8th International Conference on Scalable Uncertainty Management, Program Committee Chair)
6. RR 2012 (6th International Conference on Web Reasoning and Rule Systems, Program Committee Chair)
7. ICISTM 2012 (6th International Conference on Information Systems, Technology and Management, Information Technology Track Chair)
8. FutureTech 2011 (The 6th International Conference on Future Information Technology, Hybrid Information Technology Track Chair)
9. RuleML 2011 (International Symposium on Rules, Doctoral Symposium Chair)
10. FutureTech 2010 (The 5th International Conference on Future Information Technology, Hybrid Information Technology Track Chair)
11. ISWC 2009 (8th International Semantic Web Conference, Program Committee Chair)
12. ISWC 2008 (7th International Semantic Web Conference, Program Committee Chair)

### 2.2.2 Others

1. Organization of “Fuzziness in knowledge-based engineering systems”, special session co-located with 2017 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2017), 09 - 12 July, 2017.
2. Organization of Uncertainty and the Semantic Web Special session, special session co-located with 2011 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2011), 27 - 30 June, 2011.

3. Organization of Uncertainty and the Semantic Web Special session, special session co-located with IEEE WCCI 2010, 2010 IEEE World Congress on Computational Intelligence (WCCI 2010), 18 - 23 July, 2010.
4. Organization of Workshop on Managing Vagueness and Uncertainty in the Semantic Web, co-located with 2009 IEEE/WIC/ACM International Joint Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT 2009), 15 September, 2009.

## 2.3 Reviewing

### 2.3.1 International Projects & Activities

1. Reviewer of project proposal for an application to the Czech Science Foundation CSF, 2016.
2. Reviewer of project proposal, Human-like reasoning engine with Rule Based-Fuzzy Grey Cognitive Maps, of the 2015 National Research Funding Competition, FONDECYT, Chile, 2015.
3. Reviewer of project proposal for an application to the Czech Science Foundation CSF, 2015.
4. Reviewer of project proposal for an application to the Research Foundation Flanders FWO, 2013.
5. Reviewer of project proposal, Building the Right Query Language for the Web of Database, of the 2013 National Research Funding Competition, FONDECYT, Chile, 2012.
6. Reviewer of project proposal for an application to the Netherlands Organisation for Scientific Research – NWO, 2011.
7. Reviewer of EU-ESF (European Science Foundation) Exploratory Workshop proposal (Proposal EW11-068) “Uncertainty Management In Simulation-Optimization Of Complex Systems: Algorithms And Applications”, July 2011.
8. Reviewer of project proposal for an application to the French National Research Agency – ANR, 2011.
9. Reviewer of project proposal for an application to the Research Foundation Flanders – FWO, 2011.
10. Reviewer of project EU-IST (Information Society Technologies) X-Media, Review 19-20 April 2007.
11. Reviewer of project EU-IST (Information Society Technologies) X-Media, Pre-Review 18 January 2007.
12. Reviewer of project EU-ESF (European Science Foundation) “Modelling intelligent interaction - Logic in the Humanities, Social and Computational sciences (Log-ICCC)”, September 2007.

### 2.3.2 National Projects & Activities

1. Reviewer for MIUR (Ministero dell’Istruzione, dell’Università e della Ricerca), PRIN 2017, project “Data analysis for the next generation of Cosmic Microwave Background experiments: an Artificial Intelligence approach”, 2019.
2. Reviewer for the best young researcher publication award issued by the University of Perugia, Italy, 2016. Candidate: Francesco Santini. Title of the work: Stefano Bistarellia, Fabio Martinelli, Francesco Santini. Semiring-based framework for the deduction/abduction reasoning in access control with weighted credentials. Computers & Mathematics with Applications, Volume 64, Issue 4, August 2012, Pages 447 – 462.
3. Enrolled as Reviewer in the pool of experts (“REPRIZE”) for Register of Expert Peer Reviewers for Italian Scientific Evaluation, Italian Ministry of University and Research (MIUR), 2015.

4. Reviewer of industrial project of the Italian Ministry of Economic Development, (Ministero dello Sviluppo Economico - MISE), project M-SIDE (Multichannel ? Semantic Information Distribution Environment), 2014 - 2015.
5. Enrolled as Reviewer in the pool of experts (“Albo degli Esperti”) for industrial projects of the Italian Ministry of Education, University and Research (MURST). Since 2012.
6. Reviewer of project proposal “IntaaS: Intelligence as a Service” for an application to the Italian Ministry of University and Research (MIUR) call Futuro e Ricerca 2012.

### 2.3.3 Conference Program Committee Memberships

1. ISWC 2020 (19th International Semantic Web Conference)
2. DL 2020 (33rd International Workshop on Description Logics)
3. CILC 2020 (35th Italian Convention on Computational Logic)
4. SUM 2020 (14th International Conference on Scalable Uncertainty Management)
5. RuleML+RR 2020 (International Joint Conference on Rules and Reasoning)
6. IJCAI 2020 (Senior Program Committee Member, 29th International Joint Conference on Artificial Intelligence)
7. ESWC 2020 (17th Extended Semantic Web Conference)
8. IPMU 2020 (18th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems)
9. TheWebConf 2020 (The Web Conference -formerly known as WWW Conference, Semantics, and Knowledge Track)
10. ECAI 2020 (Senior Program Committee Member, 24th European Conference on Artificial Intelligence)
11. SAC 2020 (ACM Symposium on Applied Computing, Track on Information Access and Retrieval)
12. JIST 2019 (9th Joint International Semantic Technology Conference)
13. FQAS 2019 (13th International Conference on Flexible Query Answering Systems)
14. ISWC 2019 (18th International Semantic Web Conference)
15. RuleML+RR 2019 (International Joint Conference on Rules and Reasoning)
16. SUM 2019 (13th International Conference on Scalable Uncertainty Management)
17. IJCAI 2019 (Senior Program Committee Member, 28th International Joint Conference on Artificial Intelligence)
18. ECSQARU 2019 (Fifteenth European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty)
19. ESWC 2019 (16th Extended Semantic Web Conference)
20. TheWebConf 2019 (The Web Conference -formerly known as WWW Conference, Semantics, and Knowledge Track)
21. DL 2019 (32nd International Workshop on Description Logics)
22. DARE 2019 (5th International Workshop on Defeasible and Ampliative Reasoning)
23. CILC 2019 (34th Italian Convention on Computational Logic)
24. SAC 2019 (ACM Symposium on Applied Computing, Track on Information Access and Retrieval)
25. EUSFLAT 2019 (11th Conference of the European Society for Fuzzy Logic and Technology)
26. JIST 2018 (8th Joint International Semantic Technology Conference)
27. SCIS-ISIS 2018 (Joint 10th International Conference on Soft Computing and Intelligent Systems and 19th International Symposium on Advanced Intelligent Systems)

28. CILC 2018 (33th Italian Convention on Computational Logic)
29. OM 2018 (International Workshop on Ontology Matching, collocated with the 16th International Semantic Web Conference ISWC-2018)
30. SKG 2018 (14th International Conference on Semantics, Knowledge and Grids)
31. WI 2018 (2018 IEEE/WIC/ACM International Conference on Web Intelligence)
32. L&R 2018 (IJCAI Workshop on Learning and Reasoning: Principles & Applications to Everyday Spatial and Temporal Knowledge)
33. SUM 2018 (12th International Conference on Scalable Uncertainty Management)
34. NAFIPS 2018 (Annual Conference of the North American Fuzzy Information processing Society)
35. AI\*IA-DC 2018 (AI\*IA Doctoral Consortium 2018)
36. DARE 2018 (International Workshop on Defeasible and Ampliative Reasoning)
37. KDIR 2018 (10th International Conference on Knowledge Discovery and Information Retrieval)
38. DEXA 2018 (29th International Conference on Database and Expert Systems Applications)
39. ISWC 2018 (17th International Semantic Web Conference)
40. DL 2018 (31st International Workshop on Description Logics)
41. GECCO 2018 (Genetic and Evolutionary Computation Conference, Real World Applications track)
42. RuleML+RR 2018 (International Joint Conference on Rules and Reasoning)
43. WWW 2018 (27th International World Wide Web Conference, Web Content Analysis, Semantics, and Knowledge Track)
44. ESWC 2018 (15th Extended Semantic Web Conference)
45. SAC 2018 (ACM Symposium on Applied Computing, Track on Information Access and Retrieval)
46. IPMU 2018 (17th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems)
47. JIST 2017 (7th Joint International Semantic Technology Conference)
48. OM 2017 (International Workshop on Ontology Matching, collocated with the 16th International Semantic Web Conference ISWC-2017)
49. ISWC 2017 (16th International Semantic Web Conference)
50. LFUL 2017 (Workshop on Logical Foundations for Uncertainty and Learning, collocated with the 26th International Joint Conference on Artificial Intelligence -IJCAI 2017)
51. WASPIQ 2017 (Workshop on ASP Technologies for Querying Large Scale Multi-source Heterogeneous Web Information, associated with 30th International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems -IEA/AIE 2017)
52. SKG 2017 (13th International Conference on Semantics, Knowledge and Grids)
53. DEXA 2017 (28th International Conference on Database and Expert Systems Applications)
54. DARE 2017 (International Workshop on Defeasible and Ampliative Reasoning)
55. RuleML+RR 2017 (International Joint Conference on Rules and Reasoning)
56. SUM 2017 (11th International Conference on Scalable Uncertainty Management)
57. IFSA-SCIS 2017 (Joint 17th World Congress of International Fuzzy Systems Association and 9th International Conference on Soft Computing and Intelligent Systems)
58. GECCO 2017 (Genetic and Evolutionary Computation Conference, Real World Applications track)



59. EUSFLAT 2017 (10th Conference of the European Society for Fuzzy Logic and Technology)
60. DL 2017 (30th International Workshop on Description Logics)
61. SAC 2017 (ACM Symposium on Applied Computing, Track on Information Access and Retrieval)
62. FQAS 2017 (12th International Conference on Flexible Query Answering Systems)
63. JIST 2016 (6th Joint International Semantic Technology Conference)
64. URSW 2016 (International Workshop on Uncertainty Reasoning for the Semantic Web)
65. OM 2016 (International Workshop on Ontology Matching, collocated with the 15th International Semantic Web Conference ISWC-2016)
66. NAFIPS 2016 (Annual Conference of the North American Fuzzy Information processing Society)
67. WConSC 2016 (6th World Conference on Soft Computing)
68. ECAI 2016 (22nd European Conference on Artificial Intelligence)
69. DARE 2016 (International Workshop on Defeasible and Ampliative Reasoning)
70. SUM 2016 (10th International Conference on Scalable Uncertainty Management)
71. RuleML 2016 (10th International Web Rule Symposium)
72. IJCAI 2016 (25th International Joint Conference on Artificial Intelligence, Program Committee Member & nomination as outstanding PC member)
73. GECCO 2016 (Genetic and Evolutionary Computation Conference, Real World Applications track)
74. ESWC 2016 (13th Extended Semantic Web Conference)
75. IPMU 2016 (16th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems)
76. KR 2016 (15th International Conference on the Principles of Knowledge Representation and Reasoning)
77. SAC 2016 (ACM Symposium on Applied Computing, Track on Information Access and Retrieval)
78. FoIKS 2016 (9th International Symposium on Foundations of Information and Knowledge Systems)
79. JIST 2015 (5th Joint International Semantic Technology Conference)
80. OM 2015 (International Workshop on Ontology Matching)
81. URSW 2015 (International Workshop on Uncertainty Reasoning for the Semantic Web)
82. ORDRe 2015 (4th International Workshop on Ordering and Reasoning, collocated with the 14th International Semantic Web Conference, ISWC 2015)
83. ONTOLP 2015 (IJCAI15 Workshop on Ontologies and Logic Programming for Query Answering)
84. NAFIPS-WConSC 2015 (Annual Conference of the North American Fuzzy Information processing Society and 5th World Conference on Soft Computing)
85. WL4AI 2015 (IJCAI15 3rd Workshop on Weighted Logics for AI)
86. DEXA 2015 (26th International Conference on Database and Expert Systems Applications)
87. SUM 2015 (9th International Conference on Scalable Uncertainty Management)
88. DARE 2015 (International Workshop on Defeasible and Ampliative Reasoning)
89. CILC 2015 (30th Italian Convention on Computational Logic)

90. GECCO 2015 (Genetic and Evolutionary Computation Conference, Real World Applications track)
91. RR 2015 (9th International Conference on Web Reasoning and Rule Systems)
92. IFSA 2015 (2014 International Fuzzy Systems Association World Congress)
93. ESWC 2015 (12th Extended Semantic Web Conference)
94. RuleML 2015 (9th International Web Rule Symposium)
95. SAC 2015 (ACM Symposium on Applied Computing, Track on Information Access and Retrieval)
96. AAAI 2015 (Senior Program Committee Member, 29th AAAI Conference on Artificial Intelligence)
97. CIKM 2014 (ACM International Conference on Information and Knowledge Management)
98. ORDRing 2014 (3rd International Workshop on Ordering and Reasoning, collocated with the 13th International Semantic Web Conference, ISWC 2014)
99. URSW 2014 (International Workshop on Uncertainty Reasoning for the Semantic Web)
100. JIST 2014 (4th Joint International Semantic Technology Conference)
101. TPNC 2014 (3rd International Conference on the Theory and Practice of Natural Computing)
102. OM 2014 (International Workshop on Ontology Matching)
103. DARE 2014 (International Workshop on Defeasible and Ampliative Reasoning)
104. WI 2014 (2014 IEEE/WIC/ACM International Conference on Web Intelligence)
105. DL 2014 (27th International Workshop on Description Logics)
106. CILC 2014 (29th Italian Convention on Computational Logic)
107. COFSED 2014 (21st International Symposium on Methodologies for Intelligent Systems -ISMIS14, Special session on Cooperativeness and Flexibility in Semantic Web Databases)
108. RuleML 2014 (8th International Web Rule Symposium)
109. FSKD 2014 (11th International Conference on Fuzzy Systems and Knowledge Discovery)
110. ECAI 2014 (21st European Conference on Artificial Intelligence)
111. GECCO 2014 (Genetic and Evolutionary Computation Conference, Real World Applications track)
112. ESWC 2014 (11th Extended Semantic Web Conference)
113. DEXA 2014 (25th International Conference on Database and Expert Systems Applications)
114. RR 2014 (8th International Conference on Web Reasoning and Rule Systems)
115. AIMSA 2014 (16th International Conference on Artificial Intelligence: Methodology, Systems, Applications)
116. IPMU 2014 (15th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems)
117. SAC 2014 (ACM Symposium on Applied Computing, Track on Information Access and Retrieval)
118. FoIKS 2014 (8th International Symposium on Foundations of Information and Knowledge Systems)
119. SOFSEM 2014 (40th International Conference on Current Trends in Theory and Practice of Computer Science, Track on Data, Information, and Knowledge Engineering)

120. JIST 2013 (3rd Joint International Semantic Technology Conference)
121. ORDRing 2013 (2nd International Workshop on Ordering and Reasoning, collocated with the 12th International Semantic Web Conference, ISWC 2013)
122. URSW 2013 (International Workshop on Uncertainty Reasoning for the Semantic Web)
123. WL4AI 2013 (2nd Workshop on Weighted Logics for AI)
124. ISWC 2013 (12th International Semantic Web Conference)
125. OM 2013 (International Workshop on Ontology Matching)
126. WI 2013 (2013 IEEE / WIC / ACM International Conferences on Web Intelligence)
127. UAI 2013 (Senior Program Committee Member, 29th International Conference on Uncertainty in Artificial Intelligence)
128. RuleML 2013 (7th International Web Rule Symposium)
129. SUM 2013 (7th International Conference on Scalable Uncertainty Management)
130. EUSFLAT 2013 (8th Conference of the European Society for Fuzzy Logic and Technology)
131. GECCO 2013 (Genetic and Evolutionary Computation Conference, Real World Applications track)
132. DL 2013 (26th International Workshop on Description Logics)
133. IFSA 2013 (2013 International Fuzzy Systems Association World Congress)
134. WL4AI 2013 (IJCAI 2013 Workshop on Weighted Logics for AI)
135. RR 2013 (7th International Conference on Web Reasoning and Rule Systems)
136. DEXA 2013 (24th International Conference on Database and Expert Systems Applications)
137. IJCAI 2013 (Senior Program Committee Member, Twenty-third International Joint Conference on Artificial Intelligence)
138. SAC 2013 (ACM Symposium on Applied Computing, Track on Information Access and Retrieval)
139. URSW 2012 (International Workshop on Uncertainty Reasoning for the Semantic Web)
140. GULPTH 2012 (GULP Doctoral Thesis 2012, of 9th Italian Convention on Computational Logic -CILC 2012)
141. ISWC 2012 (11th International Semantic Web Conference)
142. OM 2012 (International Workshop on Ontology Matching)
143. WL4AI 2012 (ECAI 2012 Workshop on Weighted Logics for AI)
144. GECCO 2012 (Genetic and Evolutionary Computation Conference, Real World Applications track)
145. UniDL 2012 (2nd International Workshop on Uncertainty in Description Logics)
146. DL 2012 (25th International Workshop on Description Logics)
147. DMSSW 2012 (First International Workshop on Data Management in the Social Semantic Web)
148. JIST 2012 (2nd Joint International Semantic Technology Conference)
149. ECAI 2012 (20th European Conference on Artificial Intelligence)
150. DEXA 2012 (23rd International Conference on Database- and Expert Systems Applications)
151. RuleML 2012 (6th International Symposium on Rules)
152. AAAI 2012 (Senior Program Committee Member, 26th AAAI Conference on Artificial Intelligence)

153. KR 2012 (13th International Conference on the Principles of Knowledge Representation and Reasoning)
154. FoIKS 2012 (7th International Symposium on Foundations of Information and Knowledge Systems)
155. SAC 2012 (ACM Symposium on Applied Computing, Track on Information Access and Retrieval)
156. SAC 2012 (ACM Symposium on Applied Computing, Track on The Semantic Web and Applications)
157. SUM 2012 (6th International Conference on Scalable Uncertainty Management)
158. OrdRing 2011 (First International Workshop on Ordering and Reasoning, collocated with the 10th International Semantic Web Conference, ISWC 2011)
159. RuleML@BREF 2011 (5th International RuleML Symposium on Rules)
160. RuleML Challenge 2011 (5th International RuleML Symposium on Rules: International Rule Challenge)
161. ISWC 2011 (10th International Semantic Web Conference)
162. JIST 2011 (Joint International Semantic Technology Conference)
163. URSW 2011 (International Workshop on Uncertainty Reasoning for the Semantic Web)
164. OM 2011 (International Workshop on Ontology Matching)
165. CAEPIA 2011 (14th Conference of the Spanish Association for Artificial Intelligence)
166. FCTA 2011 (International Conference on Fuzzy Computation Theory and Computation)
167. SMAP 2011 (6th International Workshop on Semantic Media Adaptation and Personalisation)
168. SUM 2011 (5th International Conference on Scalable Uncertainty Management)
169. AAAI 2011 Tutorial Forum (25th AAAI Conference on Artificial Intelligence)
170. RR 2011 (5th International Conference on Web Reasoning and Rule Systems)
171. DL 2011 (24th International Workshop on Description Logics)
172. DEXA 2011 (22nd International Conference on Database- and Expert Systems Applications)
173. IJCAI 2011 (Senior Program Committee Member, Twenty-second International Joint Conference on Artificial Intelligence)
174. FOCI 2011 (Symposium on Foundations of Computational Intelligence)
175. ESWC 2011 (8th Extended Semantic Web Conference)
176. SAC 2011 (ACM Symposium on Applied Computing, Track on Information Access and Retrieval)
177. SAC 2011 (ACM Symposium on Applied Computing, Track on Semantic Web and Application)
178. DBKDA 2011 (Third International Conference on Advances in Databases, Knowledge, and Data Applications)
179. ICHIT 2010 (International Conference on Hybrid Information Technology)
180. RuleML Challenge 2010 (4th International Web Rule Symposium: Research Based and Industry Focused)
181. URSW 2010 (International Workshop on Uncertainty Reasoning for the Semantic Web, collocated with the 9th International Semantic Web Conference, ISWC 2010)
182. ICFC 2010 (International Conference on Fuzzy Computation)
183. FOCI 2011 (3rd Symposium on Foundations of Computational Intelligence)
184. ISWC 2010 (9th International Semantic Web Conference)

185. ODBASE 2010 (The 9th International Conference on Ontologies, DataBases, and Applications of Semantics)
186. RuleML 2010 (The 4th International Web Rule Symposium: Research Based and Industry Focused)
187. WI 2010 (2010 IEEE / WIC / ACM International Conferences on Web Intelligence)
188. ISWSA 2010 (The 2010 International Conference on Intelligent Semantic Web – Services and Applications)
189. FSKD 2010 (7th International Conference on Fuzzy Systems and Knowledge Discovery)
190. SUM 2010 (4th International Conference on Scalable Uncertainty Management)
191. IRMLES 2010 (ESWC Workshop on Inductive Reasoning and Machine Learning on the Semantic Web, co-located with 6h European Semantic Web Conference)
192. KR 2010 (Twelfth International Conference on the Principles of Knowledge Representation and Reasoning)
193. ECAI 2010 (19th European Conference on Artificial Intelligence)
194. DL 2010 (23rd International Workshop on Description Logics)
195. SEMAPRO 2010 (The Fourth International Conference on Advances in Semantic Processing)
196. RR 2010 (4th International Conference on Web Reasoning and Rule Systems)
197. ESWC PhD 2010 (7th Extended Semantic Web Conference, PhD-symposium)
198. ESWC 2010 (7th Extended Semantic Web Conference)
199. UniDL 2010 (1st Workshop on Uncertainty in Description Logics, PC member)
200. GECCO 2010 (Genetic and Evolutionary Computation Conference, Real World Applications track)
201. IPMU 2010 (13th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems)
202. AIMSAS 2010 (14th International Conference on Artificial Intelligence: Methodology, Systems, Applications)
203. DEXA 2010 (21st International Conference on Database- and Expert Systems Applications)
204. SAC 2010 (ACM Symposium on Applied Computing, Track on Semantic Web and Application)
205. SAC 2010 (ACM Symposium on Applied Computing, Track on Information Access and Retrieval)
206. SOFSEM 2010 (36th International Conference on Current Trends in Theory and Practice of Computer Science)
207. DBKDA 2010 (Second International Conference on Advances in Databases, Knowledge, and Data Applications)
208. RuleML Demo Challenge 2009 (RuleML Demo Challenge within the International RuleML Symposium on Rule Rules, Applications and Interoperability)
209. ICHIT 2009 (International Conference on Hybrid Information Technology)
210. URSW 2009 (International Workshop on Uncertainty Reasoning for the Semantic Web, collocated with the 8th International Semantic Web Conference, ISWC 2009)
211. ASWC 2009 (Fourth Asian Semantic Web Conference)
212. OM 2009 (International Workshop on Ontology Matching, co-located with the 8th International Semantic Web Conference, ISWC 2009)
213. RuleML 2009 (International RuleML Symposium on Rule Rules, Applications and Interoperability)

214. CAEPIA 2009 (Workshop on Computational Logic and AI, co-located with the 13th Conference of the Spanish Association for Artificial Intelligence)
215. IICAI 2009 (4th Indian International Conference on Artificial Intelligence)
216. EPIA 2009 (14th Portuguese Conference on Artificial Intelligence, Computational Logic with Applications (COLA) track)
217. ICFC 2009 (International Conference on Fuzzy Computation)
218. ODBASE 2009 (The 8th International Conference on Ontologies, DataBases, and Applications of Semantics)
219. SUM 2009 (3rd International Conference on Scalable Uncertainty Management)
220. IRMLES 2009 (ESWC Workshop on Inductive Reasoning and Machine Learning on the Semantic Web, co-located with 6h European Semantic Web Conference)
221. FQAS 2009 (Eighth International Conference on Flexible Query Answering Systems)
222. WI 2009 (2009 IEEE / WIC / ACM International Conferences on Web Intelligence)
223. SEMAPRO 2009 (The Third International Conference on Advances in Semantic Processing)
224. IFSA2009/EUSFLAT09 (2009 International Fuzzy Systems Association World Congress and 2009 International Conference of the European Society for Fuzzy Logic and Technology)
225. DL 2009 (22nd International Workshop on Description Logics)
226. DEXA 2009 (20th International Conference on Database- and Expert Systems Applications)
227. IJCAI 2009 (Twenty-first International Joint Conference on Artificial Intelligence)
228. GECCO 2009 (Genetic and Evolutionary Computation Conference, Real World Applications track)
229. ESWC 2009 (6th European Semantic Web Conference)
230. DB 2009 (The First International Conference on Advances in Databases)
231. SAC 2009 (ACM Symposium on Applied Computing, Track on Information Access and Retrieval)
232. URSW 2008 (International Workshop on Uncertainty Reasoning for the Semantic Web, collocated with the 7th International Semantic Web Conference, ISWC 2008)
233. ASWC 2008 (Third Asian Semantic Web Conference)
234. FLOW 2008 (The 1st International Workshop on Fuzzy Logic On the Web, co-located with IEEE/WIC/ACM International Conferences on Web Intelligence and Intelligent Agent Technology)
235. ICHIT 2008 (International Conference on Hybrid Information Technology)
236. OM 2008 (International Workshop on Ontology Matching, co-located with the 7th International Semantic Web Conference -ISWC 2008)
237. ODBASE 2008 (The 7th International Conference on Ontologies, DataBases, and Applications of Semantics)
238. WCCI 2008 (IEEE World Congress on Computational Intelligence)
239. AREA 2008 (International Workshop on Advancing Reasoning on the Web: Scalability and Commonsense, collocated with ESWC 2008, PC member)
240. GECCO 2008 (Genetic and Evolutionary Computation Conference, Real World Applications track)
241. RR 2008 (2nd International Conference on Web Reasoning and Rule Systems)
242. JELIA 2008 (11th European Conference on Logics in Artificial Intelligence)
243. SUM 2008 (2nd International Conference on Scalable Uncertainty Management)
244. ESWC 2008 (5th European Semantic Web Conference)

245. DL 2008 (21st International Workshop on Description Logics)
246. SAC 2008 (ACM Symposium on Applied Computing, Track on Information Access and Retrieval)
247. SWAP 2007 (4th Italian Semantic Web Workshop: Semantic Web Applications and Perspectives)
248. URSW 2007 (International Workshop on Uncertainty Reasoning for the Semantic Web, collocated with the 6th International Semantic Web Conference, ISWC 2007)
249. OM 2007 (International Workshop on Ontology Matching, collocated with the 6th International Semantic Web Conference -ISWC 2007)
250. LSDS-IR 2007 (International Workshop on Large Scale Distributed Systems for Information Retrieval, collocated with the 30th ACM SIGIR Conference, SIGIR07)
251. DL 2007 (20th International Workshop on Description Logics)
252. AAAI 2007 (The 22nd AAAI Conference on Artificial Intelligence)
253. ODBASE 2007 (The 6th International Conference on Ontologies, DataBases, and Applications of Semantics)
254. OWLED 2007 (Third International Workshop on OWL: Experiences and Directions, co-located with ESWC07 and RR2007)
255. FUZZY-IEEE 2007 (IEEE International Conference on Fuzzy Systems)
256. WILF 2007 (International Workshop on Fuzzy Logic and Applications)
257. ESWC 2007 (4th European Semantic Web Conference)
258. SAC 2007 (ACM Symposium on Applied Computing, Track on Information Access and Retrieval)
259. WWW 2007 (16th Int. World Wide Web Conference, Semantic Web track)
260. IICAI 2007 (3rd Indian International Conference on Artificial Intelligence)
261. ICHIT 2006 (International Conference on Hybrid Information Technology)
262. ECAI 2006 (The 17th European Conference on Artificial Intelligence)
263. AIMSA 2006 (The Twelfth International Conference on Artificial Intelligence: Methodology, Systems, Applications).
264. P2PIR 2006 (Workshop on Information Retrieval in Peer-to-Peer Networks, collocated with the ACM Fifteenth Conference on Information and Knowledge Management -CIKM 2006).
265. IKM 2006 (Workshop on Imperfect Knowledge Modeling, collocated with the 15th International Conference on Knowledge Engineering and Knowledge Management Managing Knowledge in a World of Networks -EKAW 2006).
266. FQAS 2006 (Seventh International Conference on Flexible Query Answering Systems).
267. ISWC 2006 (5th International Semantic Web Conference).
268. RoW 2006 (Workshop on Reasoning on the Web, collocated with the 15th World Wide Web Conference -WWW 2006).
269. OM 2006 (International Workshop on Ontology Matching, collocated with the 5th International Semantic Web Conference -ISWC 2006)
270. RuleML 2006 (Second International Conference on Rules and Rule Markup Languages for the Semantic Web).
271. SWAP 2006 (3rd Italian Semantic Web Workshop: SEMANTIC WEB APPLICATIONS AND PERSPECTIVES).
272. CIKM 2005 (ACM Fourteenth Conference on Information and Knowledge Management).
273. ECIR 2005 (27th European Conference on Information Retrieval).

274. IO 2005 (K-Cap Workshop on INTEGRATING ONTOLOGIES, collocated with the Third International Conference on Knowledge Capture -KCAP 2005).
275. WILF 2005 (International Workshop on Fuzzy Logic and Applications).
276. ECIR 2004 (26th European Conference on Information Retrieval).
277. ECIR 2003 (25th European Conference on Information Retrieval).
278. International Workshop on Description Logics - DL2000, RWTH Aachen, Germany, 2000.

### 2.3.4 Reviewer for Journals

Below the list of Journals for which I made reviews.

1. ACM computing Surveys (ACM Press)
2. ACM Transactions on Computational Logic (ACM Press)
3. ACM Transactions on Information Systems (ACM Press)
4. ACM Transactions on Internet Technology (ACM Press)
5. Advances in Artificial Intelligence (Hindawi Publishing Corporation)
6. AI Communications (IOS Press)
7. Artificial Intelligence Journal (Elsevier)
8. Artificial Intelligence Review (Springer)
9. Annals of Pure and Applied Logic (Elsevier)
10. British Journal of Mathematics & Computer Science (SCIENCEDOMAIN international)
11. Chinese Journal of Mathematics (Hindawi Publishing Corporation)
12. Computers and Mathematics with Applications (Elsevier)
13. Computing and Informatics (formerly: Computers and Artificial Intelligence)
14. Computer Vision and Image Understanding (Elsevier)
15. Data & Knowledge Engineering (Elsevier)
16. Engineering Applications of Artificial Intelligence (Elsevier)
17. Electronic Commerce Research and Applications (Elsevier)
18. Entropy (MDPI)
19. Expert Systems (Wiley)
20. Expert Systems With Applications (Elsevier)
21. Fundamenta Informaticae (IOS Press)
22. Fuzzy Sets and Systems (Elsevier)
23. Future Generation Computer Systems (Elsevier)
24. IEEE Access (IEEE)
25. IEEE Transactions on Fuzzy Systems (IEEE Computer Society Press)
26. IEEE Transactions on Knowledge and Data Engineering (IEEE Computer Society Press)
27. IEEE Transactions on Systems, Man, and Cybernetics, Part A: Systems and Humans (IEEE Computer Society Press)
28. Information Fusion (Elsevier)
29. Information Processing and Management (Elsevier)
30. Information Processing Letters (Elsevier)
31. Information Science (Elsevier)
32. Information Systems (Elsevier)



33. Integrated Computer-Aided Engineering (IOS Press)
34. Intelligent Systems (IEEE)
35. Intelligenza Artificiale (IOS Press)
36. International Journal On Advances in Intelligent Systems (IARIA Journals)
37. International Journal of Approximate Reasoning (Elsevier)
38. International Journal of Computational Intelligence Systems (Atlantis Press)
39. International Journal of Computer Mathematics (Taylor & Francis)
40. International Journal of Computer Standards & Interfaces (Elsevier)
41. International Journal on Artificial Intelligence Tools (World Scientific)
42. International Journal on Digital Libraries (Springer Verlag)
43. International Journal of Hybrid Information Technology (SERSC)
44. International Journal of Metadata, Semantics and Ontologies (Interscience)
45. International Journal of Semantic Web and Information Systems (IGI-Global)
46. International Journal of Uncertainty, Fuzziness, and Knowledge Based Systems (World Scientific)
47. Journal of the ACM (ACM)
48. Journal of Applied Logic (Elsevier)
49. Journal of Applied Non-Classical Logics (Éditions Hermès-Lavoisier)
50. Journal of Artificial Intelligence Research (Morgan Kaufman)
51. Journal of Automated Reasoning (Springer Verlag)
52. Journal of Autonomous Agents and Multi-Agent Systems (Springer Verlag)
53. Journal of Computational Methods in Sciences and Engineering (IOS Press)
54. Journal of Computer Science and Technology (Science Press)
55. Journal of Data Semantics (Springer Verlag)
56. Journal of Experimental & Theoretical Artificial Intelligence (Taylor e Francis)
57. Journal of the Franklin Institute (Elsevier)
58. Journal of Information Science (SAGE Journals)
59. Journal of Intelligent and Fuzzy Systems (IOS Press)
60. Journal of Intelligent Information Systems (Springer Verlag)
61. Journal of Knowledge and Information Systems (Springer Verlag)
62. Journal of Logic and Computation (Oxford University Press)
63. Journal of Logic, Language and Information (Springer Verlag)
64. Logic and Logical Philosophy (Nicolaus Copernicus University)
65. Journal of Machine Learning Research (Microtome Publishing)
66. Journal of Multiple-Valued Logic and Soft Computing (Old City Publishing)
67. Journal of Philosophic Logic (Springer Verlag)
68. Journal on Web Semantics (Elsevier)
69. Knowledge Engineering Review Journal (Cambridge University Press)
70. Logical Methods in Computer Science (ISSN: 1860-5974)
71. Mathematical Reviews (American Mathematical Society)
72. Multimedia Tools and Applications (Springer Verlag)
73. Neurocomputing (Elsevier)
74. Notre Dame Journal of Formal Logic (Duke University Press)
75. Semantic Web – Interoperability, Usability, Applicability Journal (IOS Press)
76. SIAM Journal on Computing (SIAM)
77. Soft Computing (Springer)
78. The Computer Journal (Oxford University Press)
79. The Scientific World Journal (Hindawi Publishing Corporation)
80. Theoretical Computer Science (Elsevier)
81. Theory and Practice of Logic Programming (Cambridge University Press)

### 2.3.5 Others

1. Member of the habilitation (“Habilitation à Diriger des Recherches”) committee of the University of Artois, France. Referee and examiner of applicant Tiago de Lima for his “Habilitation à Diriger des Recherches”. 2019.
2. Member of promotion and tenure committee of the University of Ghent, Belgium. Review of applicant for research position. 2019.
3. Prize committee member of “Premio Intelligenza Artificiale ‘Marco Somalvico’ 2017”, of the Italian Association for Artificial Intelligence. Italy, 2017.
4. Evaluation of research team proposal by Oliver Pivert at IRISA (Institut de Recherche en Informatique et Systèmes Aléatoires), France, 2014.
5. Member of promotion and tenure committee of the University of Leuven (KU Leuven), Belgium. Review applicant for tenure. 2013
6. Member of the AI\*IA Doctoral Dissertation Award 2013 committee of the the Italian Association for Artificial Intelligence (AI\*IA), 2013. Review of Domenico Fabio Savo, PhD, Dept. of Computer Engineering, Sapienza University of Rome. Thesis: “Dealing with Inconsistencies and Updates in Description Logic Knowledge Bases”. 2013
7. Member of promotion and tenure committee of the Computer Science department of New Mexico State University (NMSU). Review of Prof. Karen Villaverde for tenure and promotion. 2012
8. Book Review: Pascal Hitzler and Anthony Seda. Mathematical Aspects of Logic Programming Semantics. Taylor & Francis Group. 2010.

## 2.4 Memberships

### 2.4.1 Editorial Boards

1. Fuzzy Sets and Systems (Elsevier), 2007-
2. International Journal On Semantic Web and Information Systems (IGI-Global), 2011-
3. International Journal of Hybrid Information Technology (SERSC), 2007-
4. Advances in Artificial Intelligence (Hindawi Publishing Corporation), 2011-
5. Open Journal on Semantic Web (Research Publishing Online, [www.ronpub.com/ojsw](http://www.ronpub.com/ojsw)), 2013-
6. International Journal of Knowledge Science and Engineering (Inderscience Publishers), 2019-
7. International Journal On Advances in Intelligent Systems (IARIA Journals), 2009-2011
8. Chinese Journal of Mathematics (Hindawi Publishing Corporation), 2013-2018
9. The Scientific World Journal (Hindawi Publishing Corporation), 2013-2016

### 2.4.2 Guest Editor

1. Special Issue “Mathematical Methods in Artificial Intelligence” (MDPI), 2019.

### 2.4.3 Others

1. Member of CLAIRE: Confederation of Laboratories for Artificial Intelligence Research in Europe, 2018-
2. Member of CINI: National Laboratory of Artificial Intelligence and Intelligent Systems, Node CNR-DIITET, 2018-
3. Member of the Web Reasoning and Rule Systems Association. 2012-
4. Member of the European Society for Fuzzy Logic and Technology. 2011-

5. Member of the European Science Foundation (ESF) Pool of Reviewers. 2008-
6. Member of the OWL Working Group. 2010.  
[https://www.w3.org/2007/OWL/wiki/OWL\\_Working\\_Group](https://www.w3.org/2007/OWL/wiki/OWL_Working_Group)
7. Member of the Working Group on Mathematical Fuzzy Logic, MathFuzzLog. 2007-  
[https://www.mathfuzzlog.org/index.php/Main\\_Page](https://www.mathfuzzlog.org/index.php/Main_Page)
8. Member of the W3C Incubator Group “Uncertainty Reasoning for the World Wide Web” (URW3-XG). 2006–2008.  
<http://www.w3.org/2005/Incubator/urw3/XGR-urw3-20080331/>
9. Member of the NSF-EU DELOS Working Group, Delos-NFS, 01 Jan 2002 - 01 June 2003.  
<http://www.ercim.eu/publication/ws-proceedings/Delos-NSF/Personalisation.pdf>

## 2.5 Tutorials & Invited Talks

### 2.5.1 Tutorials

1. Umberto Straccia and Fernando Bobillo. From Fuzzy to Annotated Semantic Web Languages. Tutorial Lecture at the Reasoning Web 2016 Summer School, Aberdeen, UK, 5–9 September, 2016.
2. Umberto Straccia. All About Fuzzy Description Logics and Applications. Tutorial Lecture at the Reasoning Web 2015 Summer School, Berlin, Germany, 31 July – 4 August, 2015.
3. Umberto Straccia. Managing Uncertainty and Vagueness in Description Logics, Logic Programs and Description Logic Programs. Tutorial Lecture at the Reasoning Web 2008 Summer School, San Servolo Island, Venice, Italy, 7–11 September, 2008.
4. Umberto Straccia. Managing Uncertainty and Vagueness in Semantic Web Languages. Tutorial Lecture at the SWAP 2007 (4th Italian Semantic Web Workshop: Semantic Web Applications and Perspectives), Bari, Italy, 18-20 December, 2007.
5. Thomas Lukasiewicz and Umberto Straccia. Managing Uncertainty and Vagueness in Semantic Web Languages. Tutorial Lecture at the Twenty-Second Conference on Artificial Intelligence (AAAI-07), 2007. Vancouver, Canada, 22–23 July, 2007.
6. Thomas Lukasiewicz and Umberto Straccia. Managing Uncertainty and Vagueness in Semantic Web Languages. Tutorial Lecture at the 4th European Semantic Web Conference (ESWC-07), Innsbruck, Austria, 3–7 June, 2007.

### 2.5.2 Invited Talks

1. Umberto Straccia. Fuzzy & Annotated Semantic Web Languages. Invited Talk at the 2018 Artificial Intelligence International Conference (A2IC 2018), Barcelona, Spain, 21-23 November, 2018.
2. Umberto Straccia. Fuzzy Semantic Web Languages and Beyond. Invited Talk at the 30th International Conference on Industrial, Engineering, Other Applications of Applied Intelligent Systems (IEA/AIE 2017), Arras, France, June 27-30, 2017.
3. Learning Fuzzy Descriptions from Crisp OWL Ontologies. Doctoral course at Technical University of Bari, Italy, 2015.
4. Foundations of Fuzzy Logic and Semantic Web Languages. Invited Talk at the 9th Italian Convention on Computational Logic (CILC-12), Rome, Italy, 6–7 June, 2012.
5. Fuzzy Logic, Annotation Domains and Semantic Web Languages. Invited Talk at the Fifth International Conference on Scalable Uncertainty Management (SUM-11), Dayton, USA, 10–12 October, 2011.

6. Fuzzy Logic and Semantic Web Languages. Invited Talk at the Rencontres Francophones sur la Logique Floue et ses Applications (LFA-10), Lannion, France, 17–18 November, 2010.
7. Uncertainty and Vagueness in Semantic Web Languages. Invited Talk at DERI (Digital Enterprise Research Institute), Galway, Ireland, Funded by EU COST Action IC0801, 2010.
8. Multimedia Retrieval and Reasoning. Invited Talk at the BOEMIE 2008 Workshop on Ontology Evolution and Multimedia Information Extraction, Koblenz, Germany, 2 December, 2008.
9. Managing Vagueness in Semantic Web Languages. Invited Talk at University of Bolzano, Italy, 2007.
10. Fuzzy Description Logics and the Semantic Web. Invited Talk at University of Milano-Bicocca, Italy, 2006.
11. Fuzzy Description Logics and the Semantic Web. Invited Talk at the Technical University of Bari, Italy, 2006.
12. Fuzzy Description Logics, Fuzzy Logic Programming, their Combination (and the Semantic Web). Invited Talk at AIFB, University of Karlsruhe, Germany, 2005.
13. Fuzzy Description Logics and the Semantic Web. Invited Talk at the International Conference "The Logic of Soft Computing IV", Ostrava (Czech Republic), 5–7 October, 2005.

## 2.6 Tutor of Research Activities

1. Faranak Sobhani: at ISTI-CNR, as PhD student of the School of Electronic Engineering and Computer Science, Queen Mary University of London, UK.  
Dates: 01 October 2016 - 25 January 2017.
2. Giovanni Casini: at ISTI-CNR, as PostDoc of the Center for Artificial Intelligence Research (CAIR), Victoria, South Africa.  
Dates: 12 May 2014 - 11 June 2014.
3. Marco Cerami: at ISTI-CNR as PhD student of IIIA - CSIC, Barcelona, Spain.  
Dates: 15 February 2011 - 15 June 2011.
4. Fernando Bobillo Ortega: at ISTI-CNR as PhD student of University of Granada, Spain.  
Dates: 5 April 2010 - 30 July 2010.
5. Jeroen Janssen: at ISTI-CNR as PhD student of Department of Applied Mathematics and Computer Science, Ghent University, Belgium.  
Dates: 04 May - 29 May 2010.
6. Nicolás Madrid: at ISTI-CNR as PhD student of University of Malaga, Spain.  
Dates: 23 March 2009 - 26 June 2009.
7. Jorge Ruiz-Calvino: at ISTI-CNR as PhD student of University of Malaga, Spain.  
Dates: 10 May 2007 - 11 July 2007.
8. Fernando Bobillo Ortega: at ISTI-CNR as PhD student of University of Granada, Spain.  
Dates: 01 September 2006 - 31 December 2006.  
Dates: 01 September 2005 - 31 December 2005.
9. Raphael Troncy: at ISTI-CNR, Year 2004/2005 as Post Doctoral ERCIM Fellowship Programme.  
Dates: 08 November 2004 - 07 August 2005.
10. Henrik Nottelmann: at ISTI-CNR, as PhD student of University of Duisburg, Germany.  
Dates: 26 May 2004 - 9 July 2004
11. Yann Loyer: at ISTI-CNR, Year 2001/2002, as Postdoctoral ERCIM Fellowship Programme.  
Dates: 01 September 2001 - 31 August 2002.

## 2.7 University Experiences

### 2.7.1 Lecture Courses

1. Knowledge Based Systems: for 4th year students, Master Degree in Computer Science, at Department of Computer Science, University of Pisa, (6 CFU, 48 hours), February 2013.
2. Knowledge Based Systems: for 4th year students, Master Degree in Computer Science, at Department of Computer Science, University of Pisa, (6 CFU, 48 hours), February 2012.
3. Knowledge Based Systems: for 4th year students, Master Degree in Computer Science, at Department of Computer Science, University of Pisa, (6 CFU, 48 hours), February 2011.
4. Intelligent Systems II: for 4th year students, Master Degree in Computer Science, at Department of Computer Science, University of Pisa, (6 CFU, 48 hours), February 2010.
5. Intelligent Systems II: for 4th year students, Master Degree in Computer Science, at Department of Computer Science, University of Pisa, (20 hours), February 2009.
6. Knowledge Representation and Reasoning, for 4th year students, Master Degree in Informatics and Humanities, at Department of Philosophy, University of Pisa, (35 hours), November 2008.
7. Knowledge Representation and Reasoning, for 4th year students, Master Degree in Informatics and Humanities, at Department of Philosophy, University of Pisa, (35 hours), November 2007.
8. Intelligent Systems I: Description Logics and the Semantic Web, for 4th year students, Master Degree in Computer Science, at Department of Computer Science, University of Pisa, (10 hours), November 2007.
9. Intelligent Systems I: Description Logics and the Semantic Web, for 4th year students, Master Degree in Computer Science, at Department of Computer Science, University of Pisa, (10 hours), November 2006.
10. Web Search Engines, within the course on Information Retrieval, for 4th year students, Master Degree in Computer Science, at Department of Computer Science, University of Pisa, (6 hours), November 2000.

### 2.7.2 Member in PhD and Master Thesis Committees

1. Annarita Cinquepalmi: Reviewer of Ph.D. Thesis, Technical University of Bari, Italy, 2017.
2. Natalia Diaz Rodriguez: Reviewer of Ph.D. Thesis in Embedded Systems of M.Sc., "Semantic and Fuzzy Modelling for Human Behaviour Recognition in Smart Spaces. A case study on Ambient Assisted Living", Abo Akademi University, Finland, 2014-2015.
3. Marco Cerami: president of PhD committee, Department of Mathematics, University of Barcelona, Spain, 2012.
4. Nicolas Madrid: member of PhD committee, Computer Science Department, University of Malaga, Spain, 2011.
5. Jeroen Janssen: member of PhD committee, Department of Applied Mathematics and Computer Science, Ghent University, Belgium, 2011.
6. Elena Renda: member of PhD committee, Scuola Superiore Sant'Anna di Studi Universitari e di Perfezionamento, 2009.
7. Fernando Bobillo: member of PhD committee, Computer Science Department, University of Granada, Spain, 2008.
8. Jorge Ruiz-Calvino: member of PhD committee, Computer Science Department, University of Malaga, Spain, 2008.

9. Silvia Calegari: member of PhD committee, Computer Science Department, University of Milano-Bicocca, Italy, 2008.
10. Hoàng Ngà: member of master thesis committee, Master in Computational Logic, University of Lisbon, Portugal, 2006.

### 2.7.3 Supervised Bachelor, Master Theses and PhDs

1. Francesco Nocera. Development of a Fuzzy Ontology-Driven Web-Based Framework for Supporting Architectural Design. Master thesis, Department of Electric and Information Engineering, Technical University of Bari, Italy, Marks 9/10, Overall Marks 108/110, 2015.
2. Mucci Matteo. Learning Fuzzy  $\mathcal{EL}(D)$  Inclusion Axioms from Crisp OWL Ontologies. Master thesis, Department of Computer Science, University of Pisa, Italy, Marks 7/7, Overall Marks 110/110 cum laude, 2014.
3. Scateni Simone. FOIL- DL: un sistema di apprendimento per logiche descrittive fuzzy. Bachelor thesis, Department of Computer Science, University of Pisa, Italy, Marks 27/30, Overall Marks 104/110, 2013.
4. Bacarella Daniele. Protégé-Plugin per Fuzzy OWL 2. Bachelor thesis, Department of Computer Science, University of Pisa, Italy, Marks 27/30, Overall Marks 102/110, 2010.
5. Viscomi Federico. Un sistema deduttivo per Fuzzy RDF. Bachelor thesis, Department of Computer Science, University of Pisa, Italy, Marks 27/30, Overall Marks 110/110, 2009.
6. Elena Renda. P I S A - A Personalized Information Search Assistant. PhD thesis, Scuola Superiore Sant'Anna di Studi Universitari e di Perfezionamento, Overall Marks 90/100, 2009.
7. Lorenzo Muti. Interpretazione d'immagini utilizzando le ontologie e il Web Semantico. Bachelor thesis, Department of Computer Science, University of Pisa, Italy, Marks 10/11, Overall Marks 110/110, 2009.
8. Giulio Visco. Top-k Retrieval in Basi di Dati Deduttive'. Bachelor thesis, Department of Computer Science, University of Pisa, Italy, Marks 10/11, Overall Marks 110/110, 11.06.2006.
9. Stefano Sagliocco. Progettazione e realizzazione di un sistema di raccomandazione'. Master thesis at Department of Computer Science, University of Pisa, Italy, Marks 8/11, Overall Marks 106/110, 11.06.2004.
10. Elena Renda. Progettazione e realizzazione di un meta-motore di ricerca per pagine web'. Master thesis at Department of Computer Science, University of Pisa, Italy, Marks 10/11, Overall Marks 110/110, 15.12.2000.
11. Antonio Lopreiato. Implementazione e sperimentazione di un metodo deduttivo per logiche descrittive a quattro valori e fuzzy. Master thesis at Department of Computer Science, University of Pisa, Italy, Marks 10/11, Overall Marks 98/110, 23.04.1999.
12. Piero Cima. Un dimostratore automatico per logiche descrittive basato su un calcolo dei sequenti. Master thesis at Department of Computer Science, University of Pisa, Italy, Marks 9/11, Overall Marks 107/110. 18.04.1997.

## 2.8 Miscellanea

1. VQR 2011 - 2015. Evaluation of the Research Quality ('Valutazione della Qualità della Ricerca'), made by the Italian National Agency for the Evaluation of Universities and Research Institutes (ANVUR). Evaluation scores: all the submitted papers (3) have been judged as "Excellent".
2. Responsible for the Semantic Web group at ISTI-CNR, since 2008.
3. Member of space analysis committee at Area di Ricerca CNR di PISA, 2013-2014.

4. Responsible for the re-organisation of room/space allocation of the employees at ISTI-CNR, consisting of ca. 280 people and 170 rooms. October 2010-2015.
5. Participation to Dagstuhl 2008 Seminar on “Logic and Probability for Scene Interpretation”, 24.02.2008-29.02.2008, Schloss-Dagstuhl, Germany.
6. Member of the Computerised Information Resources at ISTI-CNR, 2007-2008
7. Member of the Financial Commission at ISTI-CNR, 2007-2008
8. Participation to EDBT Summerschool on Advances in Database Technology, Gubbio, Italy, 4-8 September 1995.

### 3 Awards

1. (11/2016): Best Paper Award at the Tenth International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM-16).  
*Annarita Cinquepalmi and Umberto Straccia. An Ontology-Based Affective Computing Approach for Passenger Safety Engagement on Cruise Ships. In Proceedings of the Tenth International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM-16), IARIA, pages 203 – 208, 2016.*
2. Nomination as Outstanding Program Committee Member of IJCAI 2016, the 25th International Joint Conference on Artificial Intelligence.
3. Most Cited paper of Journal of Web Semantics, by February 2017. Taken from the list of the most cited articles published since 2012, extracted from Scopus.  
*Antoine Zimmermann, Nuno Lopes, Axel Polleres and Umberto Straccia. A General Framework for Representing, Reasoning and Querying with Annotated Semantic Web Data. In Journal of Web Semantics 11, pages 72–95, Elsevier, 2012.*
4. Most Cited paper of Journal of Web Semantics, by October 2013. Taken from the list of the most cited articles published since 2008, extracted from Scopus.  
*Thomas Lukasiewicz and Umberto Straccia. Managing Uncertainty and Vagueness in Description Logics for the Semantic Web. In Journal of Web Semantics 6, pages 291–308, Elsevier, 2008.*
5. (11/2011): Best Special Session Paper Award at the 11th International Conference on Intelligent Systems Design and Application (ISDA 2011).  
*Fernando Bobillo and Umberto Straccia. Fuzzy Ontologies and Fuzzy Integrals. In Proceedings of the 11th International Conference on Intelligent Systems Design and Applications (ISDA-11), pages 1311–1316, IEEE Computer Society, 2011.*
6. 2000 ERCIM Working Group Award of the Working Group DELOS, “ERCIM Digital Library”, EU ESPRIT/Long Term Research Working Group No. 21057.  
<https://cordis.europa.eu/esprit/src/21057.htm>
7. (10/1991): Award for outstanding master theses in the field of Artificial Intelligence by the Italian Association for Artificial Intelligence (Associazione Italiana di Intelligenza Artificiale), AI\*IA.

### 4 Publications

#### 4.1 Books

1. Umberto Straccia. Foundations of Fuzzy Logic and Semantic Web Languages. CRC Studies in Informatics Series, Chapman and Hall, 386 pages, 2013.

## 4.2 Papers in International Journals

1. Ignacio Huitzil, Fernando Bobillo, Juan Gomez-Romero, Umberto Straccia. Fudge: Fuzzy Ontology Building with Consensuated Fuzzy Datatypes. In *Fuzzy Sets and Systems* xxx, pages xxx–xxx, Elsevier, 2020.  
<https://doi.org/10.1016/j.fss.xxxx.xx.xxx>
2. Giovanni Casini, Umberto Straccia and Thomas Meyer. A Polynomial Time Subsumption Algorithm for Nominal Safe  $\mathcal{EL}\mathcal{O}_\perp$  under Rational Closure. In *Information Sciences*, 501, pages 588–620, Elsevier, 2019.  
<https://doi.org/10.1016/j.ins.2018.09.037>
3. Tommaso Di Noia and Marina Mongiello and Francesco Nocera and Umberto Straccia. A Fuzzy Ontology-based Approach for Tool-supported Decision Making in Architectural Design. In *Knowledge and Information Systems, International Journal*, Volume 58, pages 83-112, Springer, Accepted for publication 2019.  
<https://doi.org/10.1007/s10115-018-1182-1>
4. Fernando Bobillo and Umberto Straccia. Reasoning within Fuzzy OWL 2 EL Revisited. In *Fuzzy Sets and Systems* 351, pages 1–40, Elsevier, 2018.  
<https://doi.org/10.1016/j.fss.2018.03.011>
5. Fernando Bobillo and Umberto Straccia. Generalizing Type-2 Fuzzy Ontologies and Type-2 Fuzzy Description Logics. In *International Journal of Approximate Reasoning*, Volume 87, pages 40–66, Elsevier, 2017.
6. Fernando Bobillo and Umberto Straccia. Optimising Fuzzy Description Logic Reasoners with General Concept Inclusions Absorption. In *Fuzzy Sets and Systems* 292, pages 98–129, Elsevier, 2016.
7. Fernando Bobillo and Umberto Straccia. The Fuzzy Ontology Reasoner fuzzyDL. In *Knowledge-Based Systems* 95, pages 12–34, Elsevier, 2016.
8. Francesca A. Lisi and Umberto Straccia. Learning in Description Logics with Fuzzy Concrete Domains. In *Fundamenta Informaticae* 140 (3–4), pages 373–391, IOS Press, 2015.
9. Giovanni Casini and Umberto Straccia. Defeasible Inheritance-based Description Logics. In *Journal of Artificial Intelligence Research* 48, pages 415–473, AAAI Press, 2013.
10. Fernando Bobillo and Umberto Straccia. Aggregation Operators for Fuzzy Ontologies. In *Applied Soft Computing* 13(9), pages 3816–3830, Elsevier 2013.
11. Francesca A. Lisi and Umberto Straccia. A Logic-based Computational Method for the Automated Induction of Fuzzy Ontology Axioms. In *Fundamenta Informaticae* 124 (4), pages 503–519, IOS Press, 2013
12. Marco Cerami and Umberto Straccia. On the (Un)Decidability of Fuzzy Description Logics under Lukasiewicz t-norm. In *Information Sciences* 227, pages 1–27, Elsevier, 2013.
13. Fernando Bobillo, Miguel Delgado, Juan Gomez-Romero and Umberto Straccia. Joining Gödel and Zadeh Fuzzy Logics in Fuzzy Description Logics. In *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems* 20 (4), pages



475–508, World Scientific Publishing, 2012

14. Umberto Straccia and Nicolas Madrid. A Top-k Query Answering Procedure for Fuzzy Logic Programming. In *Fuzzy Sets and Systems* 205, pages 1–29, Elsevier, 2012
15. Umberto Straccia. Top-k Retrieval for Ontology Mediated Access to Relational Databases . In *Information Sciences* 198, pages 1–23, Elsevier, 2012.
16. Antoine Zimmermann, Nuno Lopes, Axel Polleres and Umberto Straccia. A General Framework for Representing, Reasoning and Querying with Annotated Semantic Web Data. In *Journal of Web Semantics* 11, pages 72–95, Elsevier, 2012.
17. Fernando Bobillo and Umberto Straccia. Generalised Fuzzy Rough Description Logics. In *Information Sciences* 189, pages 43–62, Elsevier, 2012.
18. Fernando Bobillo and Umberto Straccia. Fuzzy Ontology Representation using OWL 2. In *International Journal of Approximate Reasoning* 52 (7), pages 1073–1094, Elsevier, 2011.
19. Fernando Bobillo, Félix Bou and Umberto Straccia. On the Failure of the Finite Model Property in some Fuzzy Description Logics. In *Fuzzy Sets and Systems* 172, pages 1–12, Elsevier, 2011
20. Fernando Bobillo and Umberto Straccia. Reasoning with the Finitely Many-valued Lukasiewicz Fuzzy Description Logic SROIQ. In *Information Sciences* 181 (4), pages 758–778, Elsevier, 2011.
21. Thomas Lukasiewicz and Umberto Straccia. Description Logic Programs under Probabilistic Uncertainty and Fuzzy Vagueness. In *International Journal of Approximate Reasoning* 50 (6), pages 837–853, Elsevier, 2009
22. Fernando Bobillo and Umberto Straccia. Fuzzy Description Logics with General T-norms and Datatypes. In *Fuzzy Sets and Systems* 160 (23), pages 3382–3402, Elsevier, 2009
23. Yann Loyer and Umberto Straccia. Approximate Well-Founded Semantics, Query Answering and Generalized Normal Logic Programs over Lattices. In *Annals of Mathematics and Artificial Intelligence* 55 (3-4), pages 389–417, Springer Verlag, 2009
24. Fernando Bobillo and Miguel Delgado and Juan Gómez-Romero and Umberto Straccia. Fuzzy Description Logics under Gödel Semantics. In *International Journal of Approximate Reasoning* 50 (3), pages 494–514, Elsevier, 2009
25. Umberto Straccia and Manuel Ojeda-Aciego and Carlos V. Damasio. On Fixed-points of Multi-valued Functions on Complete Lattices and their Application to Generalized Logic Programs. In *SIAM Journal on Computing* 8 (5), pages 1881–1911, SIAM, 2009.
26. Azzurra Ragone, Umberto Straccia, Tommaso Di Noia, Eugenio Di Sciascio and Francesco M. Donini. Fuzzy Matchmaking in E-Marketplaces of peer entities using Datalog. In *Fuzzy Sets and Systems* 160(2), pages 251–268, Elsevier, 2009.

27. Thomas Lukasiewicz and Umberto Straccia. Managing Uncertainty and Vagueness in Description Logics for the Semantic Web. In *Journal of Web Semantics* 6, pages 291–308, Elsevier, 2008.  
Most Cited paper of *Journal of Web Semantics*, by October 2013. Taken from the list of the most cited articles published since 2008, extracted from Scopus.
28. Thomas Lukasiewicz and Umberto Straccia. Tightly Coupled Fuzzy Description Logic Programs under the Answer Set Semantics for the Semantic Web. In *International Journal on Semantic Web and Information Systems* 4(3), pages 68–89, IGI Publishing, 2008.
29. Damasio, Carlos Viegas and Pan, Jeff Z. and Stoilos, Giorgos and Straccia, Umberto. Representing Uncertainty Rules in RuleML. In *Fundamenta Informaticae*, 82 (3), pages 265–288, IOS Press, 2008.
30. Umberto Straccia, Fernando Bobillo. Mixed Integer Programming, General Concept Inclusions and Fuzzy Description Logics. In *Mathware & Soft Computing*, 14(3):247–259, 2007.
31. Nottelmann, Henrik and Straccia, Umberto. Information retrieval and machine learning for probabilistic schema matching. *Information Processing & Management* (43), pages 552-576, Elsevier, 2007.
32. Avancini, Henri and Candela, Leonardo and Straccia, Umberto. Recommenders in a Personalized, Collaborative Digital Library Environment. In *Journal of Intelligent Information Systems* 28 (3), pages 253-283. Springer Verlag, 2007.
33. Y. Loyer and U. Straccia. Epistemic foundation of stable model semantics. *Journal of Theory and Practice of Logic Programming*, 6:355-393, 2006.
34. U. Straccia. Description logics over lattices. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 14(1):1–16, 2006.
35. Y. Loyer and U. Straccia. Any-world assumptions in logic programming. *Theoretical Computer Science*, 342(2-3):351-381, 2005.
36. M. E. Renda and U. Straccia. A personalized collaborative digital library environment: a model and an application. *Information Processing & Management*, 41(1):5-21, 2005.
37. H. Avancini and U. Straccia. User recommendation for collaborative and personalized digital archives. *International Journal of Web Based Communities (IJWBC)*, 1(2):163-175, 2005.
38. U. Straccia and C. Thanos. An open collaborative virtual archive environment. *International Journal of Digital Libraries*, 4(1):23-24, 2004.
39. C. Meghini, F. Sebastiani, and U. Straccia. A model of multimedia information retrieval. *Journal of the ACM*, 48(5):909-970, 2001.
40. U. Straccia. Reasoning within fuzzy description logics. *Journal of Artificial Intelligence Research*, 14:137-166, 2001.

41. D. Castelli, P. Pagano, and U. Straccia. Scholnet and Cyclades: Extending the role of digital libraries. *D-Lib Magazine*, 7(4), 2001.
42. F. Sebastiani and U. Straccia. Default reasoning in a terminological logic. *Computers and Artificial Intelligence (now Computing and Informatics)*, 14(3):225-251, 1995.
43. F. Sebastiani and U. Straccia. Incremental acquisition of knowledge for non-monotonic reasoning. *Computers and Artificial Intelligence (now Computing and Informatics)*, 13(4):377-396, 1994.

### 4.3 Papers in International Book Chapters

1. Fernando Bobillo, Marco Cerami, Francesc Esteva, Àngel García-Cerdaña, Rafael Peñaloza, Umberto Straccia. Fuzzy Description Logics in the framework of Mathematical Fuzzy Logic. In *Handbook of Mathematical Fuzzy Logic, Volume 3, Studies in Logic, Mathematical Logic and Foundations, Volume 58, Chapter 16*, pages 1105–1181, College Publications, 2015.
2. Tommaso di Noia, Marina Mongiello and Umberto Straccia. Fuzzy Description Logics for Component Selection in Software Design. In *Software Engineering and Formal Methods: SEFM 2015 Collocated Workshops, Revised Selected Papers, LNCS 9509*, pages 228–239, Springer Verlag, 2015.
3. Francesca A. Lisi and Straccia, Umberto. Can ILP Deal with Incomplete and Vague Structured Knowledge? In *Latest Advances in Inductive Logic Programming*, Chapter 21, pages 199-206, World Scientific, 2014.
4. Francesca A. Lisi and Straccia, Umberto. A FOIL-Like Method for Learning under Incompleteness and Vagueness. In *23rd International Conference on Inductive Logic Programming (ILP-14), Lecture Notes in Artificial Intelligence, Volume 8812*, pages 123–139, Revised Selected Papers, Springer Verlag, 2014.
5. Umberto Straccia. On the Top-k Retrieval Problem for Ontology-Based Access to Databases. In *Flexible Approaches in Data, Information and Knowledge Management, Studies in Computational Intelligence, Volume 497, Chapter 5*, pages 95–114, Springer Verlag, 2014.
6. Fernando Bobillo and Umberto Straccia. Finite Fuzzy Description Logics and Crisp Representations. In *Uncertainty Reasoning for the Semantic Web II, Lecture Notes in Computer Science, Volume 7123*, pages 102–121, Springer Verlag, 2013.
7. Simona Colucci, Tommaso Di Noia, Azzurra Ragone, Michele Ruta, Umberto Straccia and Eufemia Tinelli. Informative Top-k Retrieval for Advanced Skill Management, In *Semantic Web Information Management*, Chapter 19, Pages 449-476, Springer Verlag, 2010.
8. Thomas Lukasiewicz and Umberto Straccia. Tightly Integrated Fuzzy Description Logic Programs under the Answer Semantics for the Semantic Web. In *Progressive Concepts for Semantic Web Evolution: Applications and Developments*, pages 237–256, IGI-Global, 2010.
9. Carlo Meghini, Fabrizio Sebastiani, and Umberto Straccia. Multimedia Information Retrieval Model. In *Ling Liu and M. Tamer Ozsu (eds.) Encyclopedia of Database*

Systems, pages 1820–1824, Springer, 2009.

10. U. Straccia. Fuzzy Description Logic Programs. In *Uncertainty and Intelligent Information Systems*, B. Bouchon-Meunier, R.R. Yager, C. Marsala, and M. Rifqi eds., chapter 29, pages 405–418, World Scientific, 2008.
11. U. Straccia. A fuzzy description logic for the semantic web. In E. Sanchez, editor, *Fuzzy Logic and the Semantic Web, Capturing Intelligence*, chapter 4, pages 73-90. Elsevier, 2006.
12. U. Straccia. Uncertainty and description logic programs over lattices. In E. Sanchez, editor, *Fuzzy Logic and the Semantic Web, Capturing Intelligence*, chapter 7, pages 115-133. Elsevier, 2006.
13. H. Nottelmann and U. Straccia. A probabilistic, logic-based framework for automated web directory alignment. In Z. Ma, editor, *Soft Computing in Ontologies and the Semantic Web*, volume 204 of *Studies in Fuzziness and Soft Computing*, pages 47-77. Springer Verlag, 2006.
14. L. Candela and U. Straccia. The personalized, collaborative digital library environment CYCLADES and its collections management. In J. Callan, F. Crestani, and M. Sanderson, editors, *Multimedia Distributed Information Retrieval, Volume 2924 in Lecture Notes in Computer Science*, pages 156-172. Springer Verlag, 2003.
15. U. Straccia. A framework for the retrieval of multimedia objects based on four-valued fuzzy description logics. In F. Crestani and G. Pasi, editors, *Soft Computing in Information Retrieval: Techniques and Applications*, pages 332–357. Physica Verlag (Springer Verlag), Heidelberg, Germany, 2000.
16. C. Meghini, F. Sebastiani, and U. Straccia. Mirlog: A logic for multimedia information retrieval. In F. Crestani, M. Lalmas, and C. van Rijsbergen, editors, *Logic and Uncertainty in Information Retrieval: Advanced models for the representation and retrieval of information*, volume 4 of *The Kluwer International Series On Information Retrieval*, chapter 7. pages, 151-185, Kluwer Academic Publishers, Boston, USA, 1998.

#### 4.4 Tutorial & Invited Talk Papers

1. Umberto Straccia. An Introduction to Fuzzy & Annotated Semantic Web Languages. In arXiv:1811.05724 [cs.AI], <http://arxiv.org/abs/1811.05724>, pages 1–58, 2018.
2. Umberto Straccia. Fuzzy Semantic Web Languages and Beyond. Volume 10350 in *Lecture Notes in Artificial Intelligence*, pages 3–8. Springer Verlag, 2017.
3. Umberto Straccia and Fernando Bobillo. From Fuzzy to Annotated Semantic Web Languages. Volume 9885 in *Lecture Notes in Computer Science*, pages 203–240. Springer Verlag, 2017.
4. Umberto Straccia. All About Fuzzy Description Logics and Applications. Volume 9203 in *Lecture Notes in Computer Science*, pages 1–31. Springer Verlag, 2015.
5. Umberto Straccia. Fuzzy Logic, Annotation Domains and Semantic Web Languages. Volume 6929 in *Lecture Notes in Computer Science*, pages 2–21, Springer Verlag,

2011.

6. Umberto Straccia. Managing Uncertainty and Vagueness in Description Logics, Logic Programs and Description Logic Programs. Volume 5224 in Lecture Notes in Computer Science, pages 54-103. Springer Verlag, 2008.

## 4.5 Papers in International Conferences

1. Umberto Straccia. How Much Knowledge is in a Knowledge Base? Introducing Knowledge Measures (Preliminary Report). Proceedings of the 24th European Conference on Artificial Intelligence (ECAI-20), Frontiers in Artificial Intelligence and Applications xxxx, IOS Press, pages xxxx–xxxx, 2020.
2. Ignacio Huitzil, Umberto Straccia, Carlos Bobed, Eduardo Mena and Fernando Bobillo. The Serializable and Incremental Semantic Reasoner fuzzyDL. Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2020), IEEE, pages xxxx–xxxx, 2020.
3. Ignacio Huitzil, Umberto Straccia, Natalia Díaz Rodríguez and Fernando Bobillo. Datil: Learning Fuzzy Ontology Datatypes. Proceedings of the 17th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU-18), Communications in Computer and Information Science, Volume 854, Springer, pages 100–112, 2018.
4. Andrea Cali and Umberto Straccia. Integration of Deep Web Sources: A Distributed Information Retrieval Approach. Proceedings of the 7th International Conference on Web Intelligence, Mining and Semantics (WIMS-17), pages 33:1–4, ACM, 2017.
5. Annarita Cinquepalmi and Umberto Straccia. An Ontology-Based Affective Computing Approach for Passenger Safety Engagement on Cruise Ships. In Proceedings of the Tenth International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM-16), IARIA, pages 203 – 208, 2016. *Best Paper Award.*
6. Fernando Bobillo and Umberto Straccia. On Partitioning-Based Optimisations in Expressive Fuzzy Description Logics. In Proceedings of the 24th IEEE International Conference on Fuzzy Systems (FUZZ-IEEE-15), 8 pages, IEEE Computer Society, IEEE Press 2015.
7. U. Straccia and Matteo Mucci. pFOIL-DL: Learning (Fuzzy)  $\mathcal{EL}$  Concept Descriptions from Crisp OWL Data Using a Probabilistic Ensemble Estimation. In Proceedings of the 30th Annual ACM Symposium on Applied Computing (SAC-15), pages 345-352, Salamanca, Spain, 2015. ACM.
8. Giovanni Casini and Umberto Straccia. Towards Rational Closure for Fuzzy Logic: The Case of Propositional Gödel Logic. In Proceedings of the 19th International Conferences on Logic for Programming, Artificial Intelligence and Reasoning (LPAR-13), Volume 8312 in Lecture Notes in Computer Science, Advanced Research in Computing and Software Science, pages 213–227, Springer Verlag, 2013.
9. Nicolas Madrid and Umberto Straccia. On Top-k Retrieval for a Family of Non-monotonic Ranking Functions. In Proceedings of the 10th International Conference on Flexible Query Answering Systems (FQAS-13), Volume 8132 in Lecture Notes in Artificial Intelligence Science, pages 507–518, Springer Verlag, 2013.

10. Fernando Bobillo and Umberto Straccia. Fuzzy Ontologies and Fuzzy Integrals. In Proceedings of the 11th International Conference on Intelligent Systems Design and Applications (ISDA-11), pages 1311–1316, IEEE Computer Society, 2011.  
*Best Special Session Paper Award.*
11. Casini, Giovanni and Straccia, Umberto. Defeasible Inheritance-based Description Logics. In Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI-11), pages 813-818, AAAI Press/International Joint Conferences on Artificial Intelligence, 2011.
12. Fernando Bobillo and Umberto Straccia. Aggregation Operators and Fuzzy OWL 2. In Proceedings of the 2011 International Conference on Fuzzy Systems (FUZZ-11), IEEE Computer Society, pages 1727–1734, IEEE Press 2011.
13. Umberto Straccia. SoftFacts: A Top-k Retrieval Engine for Ontology Mediated Access to Relational Databases. In Proceedings of the 2010 IEEE International Conference on Systems, Man and Cybernetics (SMC-10), pages 4115–4122. IEEE Press, 2010.
14. Nuno Lopes, Axel Polleres, Umberto Straccia and Antoine Zimmermann. AnQL: SPARQLing Up Annotated RDF. In Proceedings of the International Semantic Web Conference (ISWC-10), Volume 6496 in Lecture Notes in Computer Science, pages 518–533, Springer Verlag, 2010.
15. Fernando Bobillo and Umberto Straccia. Representing Fuzzy Ontologies in OWL 2. Proceedings of the 19th IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2010), IEEE Computer Society, pages 2695–2700, 2010.
16. Casini, Giovanni and Straccia, Umberto. Rational Closure for Defeasible Description Logics. In Proceedings of the 12th European Conference on Logics in Artificial Intelligence (JELIA-10), Volume 6341 in Lecture Notes in Artificial Intelligence, pages 77-90, Springer Verlag, 2010.
17. Umberto Straccia, Nuno Lopes, Gergely Lukacsy, Axel Polleres. A General Framework for Representing and Reasoning with Annotated Semantic Web Data. In Proceedings of the Twenty-Fourth AAAI Conference on Artificial Intelligence (AAAI-10), AAAI Press, pages 1437–1442, 2010.
18. Alessandro Ciaramella, Mario G.C.A. Cimino, Francesco Marcelloni, Umberto Straccia. Combining Fuzzy Logic and Semantic Web to Enable Situation-Awareness in Service Recommendation. In Proceedings of the 21st International Conference on Database and Expert Systems Applications (DEXA-10), Volume 6261 in Lecture Notes in Computer Science, pages 31—45, Springer Verlag, 2010.
19. Umberto Straccia. An Ontology Mediated Multimedia Information Retrieval System. In Proceedings of the 40th International Symposium on Multiple-Valued Logic (ISMVL-10), pages 319–324, IEEE Computer Society, 2010.
20. Fernando Bobillo and Umberto Straccia. Extending Datatype Restrictions in Fuzzy Description Logics. In Proceedings of the 9th International Conference on Intelligent Systems Design and Applications (ISDA-09), pages 785–790, IEEE Computer Society, 2009.
21. Umberto Straccia. A Minimal Deductive System for General Fuzzy RDF. In Proceedings of the 3rd International Conference on Web Reasoning and Rule Systems (RR-09), Volume 5837 in Lecture Notes in Computer Science, pages 166-181,

Springer Verlag, 2009.

22. Umberto Straccia and Eufemia Tinelli and Simona Colucci and Tommaso Di Noia and Eugenio Di Sciascio. Semantic-Based Top-k Retrieval for Competence Management. In Proceedings of the 18th International Symposium on Methodologies for Intelligent Systems (ISMIS-09), Volume 5722 in Lecture Notes in Computer Science, pages 473–482, Springer Verlag, 2009.
23. Fernando Bobillo and Umberto Straccia. An OWL Ontology for Fuzzy OWL 2. In Proceedings of the 18th International Symposium on Methodologies for Intelligent Systems (ISMIS-09), Volume 5722 in Lecture Notes in Computer Science, pages 151–160, Springer Verlag, 2009.
24. Umberto Straccia. Multi-Criteria Decision Making in Fuzzy Description Logics: A First Step. In Proceedings of the 13th International Conference on Knowledge-Based & Intelligent Information & Engineering Systems (KES-09), Volume 5711 in Lecture Notes in Artificial Intelligence, pages 79-87, Springer Verlag, 2009.
25. Umberto Straccia. Towards Spatial Reasoning in Fuzzy Description Logics. In Proceedings of the 2009 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE-09), IEEE Computer Society, pages 512-517, 2009.
26. Fernando Bobillo and Umberto Straccia. Fuzzy Descriptions Logics with Fuzzy Truth Values. In Proceedings of the World Congress of the International Fuzzy Systems Association/European society for Fuzzy Logic and Technology (IFSA/EUSFLAT-09). pages 189—194, 2009.
27. Fernando Bobillo and Umberto Straccia. Supporting Fuzzy Rough Sets in Fuzzy Description Logics. In Proceedings of the 10th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU-09), Volume 5590 in Lecture Notes in Artificial Intelligence, pages 676-687, Springer Verlag, 2009.
28. Azzurra Ragone, Umberto Straccia, Tommaso Di Noia and Eugenio Di Sciascio. Fuzzy bilateral matchmaking in e-marketplaces. In Proceedings of the 12th International Conference on Knowledge-Based & Intelligent Information & Engineering Systems (KES-08), Volume 5179 in Lecture Notes in Artificial Intelligence, pages 293-301, Springer Verlag, 2008.
29. Fernando Bobillo and Umberto Straccia. On Qualified Cardinality Restrictions in Fuzzy Description Logics under Lukasiewicz semantics. Proceedings of the 12th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU-08), pages 1008—1015, 2008.
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31. Fernando Bobillo and Umberto Straccia. Towards a Crisp Representation of Fuzzy Description Logics under Łukasiewicz semantics. In Proceedings of the 17th International Symposium on Methodologies for Intelligent Systems (ISMIS-08), Volume 4994 in Lecture Notes in Computer Science, pages 309–318, Springer Verlag, 2008.
32. Azzurra Ragone, Umberto Straccia, Tommaso Di Noia, Eugenio Di Sciascio and Francesco M. Donini. Towards a Fuzzy Logic for Automated Multi-issue Negotiation. In Proceedings of the 5th International Symposium on Foundations of Information and Knowledge Systems (FoIKS-08), Volume 4932 in Lecture Notes in

Computer Science, pages 381–396, Springer Verlag, 2008.

33. Thomas Lukasiewicz and Umberto Straccia. Top-K Retrieval in Description Logic Programs under Vagueness for the Semantic Web. Proceedings of the 1st International Conference on Scalable Uncertainty Management (SUM-07), Volume 4772 in Lecture Notes in Computer Science, pages 16-30, 2007. Springer Verlag.
34. Umberto Straccia. A Top-Down Query Answering Procedure for Normal Logic Programs under the Any-World Assumption. Proceedings of the 9th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU-07), Volume 4724 in Lecture Notes in Computer Science, pages 115–117, Springer Verlag, 2007.
35. Thomas Lukasiewicz and Umberto Straccia. Description Logic Programs under Probabilistic Uncertainty and Fuzzy Vagueness. Proceedings of the 9th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU-07), Volume 4724 in Lecture Notes in Computer Science, pages 187-198, Springer Verlag, 2007.
36. Umberto Straccia and Fernando Bobillo. Mixed Integer Programming, General Concept Inclusions and Fuzzy Description Logics. In Proceedings of the 5th Conference of the European Society for Fuzzy Logic and Technology (EUSFLAT-07), Vol.2, pages 213-220, 2007.
37. Thomas Lukasiewicz and Umberto Straccia. Tightly Integrated Fuzzy Description Logic Programs under the Answer Semantics for the Semantic Web. In Proceedings of the First International Conference on Web Reasoning and Rule Systems (RR-07), Volume 4524 in Lecture Notes in Computer Science, pages 289–298, Springer Verlag, 2007.
38. Straccia, Umberto. Towards Vague Query Answering in Logic Programming for Logic-based Information Retrieval. In World Congress of the International Fuzzy Systems Association (IFSA-07), Volume 4529 in Lecture Notes in Computer Science, pages 125–134, Springer Verlag, 2007.
39. Azzurra Ragone, Umberto Straccia, Tommaso Di Noia, Eugenio Di Sciascio and Francesco M. Donini. Vague Knowledge Bases for Matchmaking in P2P E-Marketplaces. In Proceedings of the 4th European Semantic Web Conference (ESWC-07), 2007. Volume 4519 in Lecture Notes in Computer Science, pages 414–428, Springer Verlag, 2007.
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41. U. Straccia. Annotated answer set programming. In Proceedings of the 11th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, (IPMU-06), pages 1212-1219. E.D.K., Paris, 2006.
42. U. Straccia. Answering vague queries in fuzzy DL-Lite. In Proceedings of the 11th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, (IPMU-06), pages 2238-2245. E.D.K., Paris, 2006.
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## 4.10 PhD Thesis

U. Straccia. Foundations of a Logic based approach to Multimedia Document Retrieval. PhD thesis, Department of Computer Science, University of Dortmund, Dortmund, Germany, June 1999.

# 5 Software Artifacts

**Remark.** For further details about the software artifacts, see <http://www.umbertostraccia.it/cs/>

## 5.1 Major Tools

1. **FuzzyDL: A Fuzzy Description Logic Reasoner**

Publications about the system:

- (a) Fernando Bobillo and Umberto Straccia. The Fuzzy Ontology Reasoner fuzzyDL. In Knowledge-Based Systems 95, pages 12–34, Elsevier, 2016.

- (b) Fernando Bobillo and Umberto Straccia. fuzzyDL: An Expressive Fuzzy Description Logic Reasoner. In Proceedings of the 2008 International Conference on Fuzzy Systems (FUZZ-08), IEEE Computer Society, pages 923-930, 2008.

## 2. **FuzzyOWL2. Fuzzy Ontology Representation using OWL 2**

Publications about the system:

- (a) Fernando Bobillo and Umberto Straccia. Fuzzy Ontology Representation using OWL 2. In International Journal of Approximate Reasoning 52 (7), pages 1073-1094, Elsevier, 2011.
- (b) Fernando Bobillo and Umberto Straccia. Representing Fuzzy Ontologies in OWL 2. Proceedings of the 19th IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2010), IEEE Computer Society, pages 2695-2700, 2010.
- (c) Fernando Bobillo and Umberto Straccia. An OWL Ontology for Fuzzy OWL 2. In Proceedings of the 18th International Symposium on Methodologies for Intelligent Systems (ISMIS-09), Volume 5722 in Lecture Notes in Computer Science, pages 151-160, Springer Verlag, 2009.

## 3. **Fuzzy DL-Learner: A Tool to Learn (Fuzzy) Class Descriptions from OWL 2 Ontologies**

Publications about the system:

- (a) Francesca A. Lisi and Umberto Straccia. Learning in Description Logics with Fuzzy Concrete Domains. In Fundamenta Informaticae 140 (3-4), pages 373-391, IOS Press, 2015.
- (b) U. Straccia and Matteo Mucci. pFOIL-DL: Learning (Fuzzy)  $\mathcal{EL}$  Concept Descriptions from Crisp OWL Data Using a Probabilistic Ensemble Estimation. In Proceedings of the 30th Annual ACM Symposium on Applied Computing (SAC-15), pages 345-352, Salamanca, Spain, 2015. ACM.
- (c) Francesca A. Lisi and Umberto Straccia. A Logic-based Computational Method for the Automated Induction of Fuzzy Ontology Axioms. In Fundamenta Informaticae 124 (4), pages 503-519, IOS Press, 2013.
- (d) Francesca A. Lisi and Straccia, Umberto. A System for Learning GCI Axioms in Fuzzy Description Logics Axioms. In Proceedings of the 26th International Workshop on Description Logics (DL-13), CEUR Workshop Proceedings, Volume 1014, pages 760-778, CEUR-WS.org, 2013.

## 4. **AnQL: Annotated RDFS (<http://anql.deri.org/>)**

Publications about the system:

- (a) Antoine Zimmermann, Nuno Lopes, Axel Polleres and Umberto Straccia. A General Framework for Representing, Reasoning and Querying with Annotated Semantic Web Data. In Journal of Web Semantics 11, pages 72-95, Elsevier, 2012.
- (b) Umberto Straccia, Nuno Lopes, Gergely Lukacsy, Axel Polleres. A General Framework for Representing and Reasoning with Annotated Semantic Web Data. In Proceedings of the Twenty-Fourth AAAI Conference on Artificial Intelligence (AAAI-10), AAAI Press, pages 1437-1442, 2010.



- (c) Nuno Lopes, Axel Polleres, Umberto Straccia and Antoine Zimmermann. AnQL: SPARQLing Up Annotated RDF. In Proceedings of the International Semantic Web Conference (ISWC-10), Volume 6496 in Lecture Notes in Computer Science, pages 518–533, Springer Verlag, 2010.

**5. DLMedia: An Ontology Mediated Multimedia Information Retrieval System**

Publications about the system:

- (a) Umberto Straccia. An Ontology Mediated Multimedia Information Retrieval System. In Proceedings of the 40th International Symposium on Multiple-Valued Logic (ISMVL-10), pages 319–324, IEEE Computer Society, 2010.
- (b) Umberto Straccia and Giulio Visco. DLMedia: an Ontology Mediated Multimedia Information Retrieval System. In Proceedings of the International Workshop on Description Logics (DL-07), CEUR-WS.org, Volume 353, 2007. ISSN: 1613-0073

**6. SoftFacts: Ontology Mediated Access to Databases.**

Publications about the system:

- (a) Umberto Straccia. SoftFacts: A Top-k Retrieval Engine for Ontology Mediated Access to Relational Databases. In Proceedings of the 2010 IEEE International Conference on Systems, Man and Cybernetics (SMC-10), pages 4115–4122. IEEE Press, 2010.
- (b) Umberto Straccia. Top-k Retrieval for Ontology Mediated Access to Relational Databases . In Information Sciences 198, pages 1–23, Elsevier, 2012.

**7. fuzzyRDF: A Fuzzy RDFS Reasoner.**

Publications about the system:

- (a) Umberto Straccia. A Minimal Deductive System for General Fuzzy RDF. In Proceedings of the 3rd International Conference on Web Reasoning and Rule Systems (RR-09), Volume 5837 in Lecture Notes in Computer Science, pages 166-181, Springer Verlag, 2009.

**8. oMap: A Probabilistic Ontology Alignment Tool**

Publications about the system:

- (a) U. Straccia and R. Troncy. Towards distributed information retrieval in the semantic web: Query Reformulation Using the oMAP Framework. In 3rd European Semantic Web Conference (ESWC-06), Volume 4011 in Lecture Notes in Computer Science, pages 378-392. Springer Verlag, 2006.
- (b) U. Straccia and R. Troncy. oMAP: Combining classifiers for aligning automatically owl ontologies. In 6th International Conference on Web Information Systems Engineering (WISE-05), Volume 3806 in Lecture Notes in Computer Science, pages 133-147. Springer Verlag, 2005.
- (c) U. Straccia and R. Troncy. oMAP: Results of the ontology alignment contest. In Workshop on Integrating Ontologies to be held with the 3rd International Conference on Knowledge Capture (K-CAP-05), volume 156, pages 92-96, Banff, Canada, October, 2-5 2005. CEUR Workshop Proceedings (<http://ceur-ws.org>).

## 5.2 Minor Tools

9. **InfoHunter: A Meta Search Engine**
10. **Multivalued-prolog:** The system presents a simple and effective way in order to manage [0,1] truth graded atoms through "Multivalued Logic Programming". A standard prolog engine is enough. You just need to load a small file into your standard prolog
11. **State-Solver-Template:** This is a TEMPLATE for a search algorithm in a space of states. Each state encodes a problem to be solved. It starts with a set of states to be solved and returns true if all of them can be solved
12. **sat-L:** The system presents a list of functionalities about propositional logic. testing code is provided. The system is a very naive implementation
13. **sat-UP:** As sat-L, except that Unit-propagation is provided
14. **sat-S:** The system presents a list of functionalities about propositional logic. It implements a signed tableaux. Moreover, it allows reasoning in a four-valued semantics framework (see bibitem ). Testing code is provided
15. **sat-S-UP:** As sat-S, except that Unit-propagation is provided
16. **sat-F:** The system presents a list of functionalities about fuzzy propositional logic. Testing code is provided, too
17. **alc:** The system presents a list of functionalities about the Description Logic ALC. Testing code is provided  
**alc-F:** The system presents a list of functionalities about the Fuzzy Description Logic ALC. Testing code is provided

## 6 Language Proficiency

Language proficiency, according to the Common European Framework of Reference for Languages,<sup>1</sup> abbreviated as CEFR or CEF:

Language	Production		Comprehension	
	Written	Oral	Written	Oral
Italian	C2	C2	C2	C2
English	C2	C2	C2	C2
German	C2	C2	C2	C2
French	A2	B2	B2	B2

I authorise the use of personal data contained in this CV on the basis of Italian law (art. 13 del Decreto Legislativo 196/2003).

Pisa, April 6, 2020  
Umberto Straccia

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<sup>1</sup>[https://en.wikipedia.org/wiki/Common\\_European\\_Framework\\_of\\_Reference\\_for\\_Languages](https://en.wikipedia.org/wiki/Common_European_Framework_of_Reference_for_Languages)