

# Curriculum Vitae

## di Francesco Buccafurri

Francesco Buccafurri è professore ordinario di informatica (SSD ING-INF/05) presso il Dipartimento di Informatica Elettronica, Matematica e Trasporti (DIMET) dell'Università "Mediterranea" di Reggio Calabria. Nel 1991 ha conseguito la laurea in Ingegneria Informatica riportando la votazione di 110/110 lode presso l'Università della Calabria. Dal 1991-1992 ha usufruito di una borsa di studio per ricerche nel contesto delle basi di conoscenza basate sul paradigma logico presso il CRAI (Centro per la Ricerca e le Applicazioni in Informatica - Rende (CS)). Nel 1995 ha conseguito il titolo di Dottore di Ricerca in Ingegneria Informatica e dei Sistemi, svolto presso l'Università della Calabria, discutendo una tesi dal titolo "Logica Ordinata per la Rappresentazione della Conoscenza: Semantica, Complessità ed Espressività". Nel 1996 è stato visiting researcher presso l'Information System Department dell'Università Politecnica di Vienna, dove ha lavorato in collaborazione con il gruppo di Database ed Intelligenza Artificiale (in particolare con il Prof. Georg Gottlob e il Prof. Thomas Eiter). Dal 1995 al 1997 è stato professore a contratto (ex Art. 100 del DPR 382/80) presso l'Università della Calabria. Dal 2 Maggio 1997 è di ruolo (prima come ricercatore, poi come Professore Associato, poi come Professore di I fascia) presso l'Università di Reggio Calabria, Facoltà di Ingegneria. Presso la Facoltà di Ingegneria, egli è stato titolare di diversi corsi, tra cui Informatica Teorica (Laurea Specialistica in Ingegneria delle Telecomunicazioni), Programmazione Object Oriented, Algoritmi e Strutture Dati, Sistemi Operativi (Laurea Triennale in Ingegneria delle Telecomunicazioni) e Sicurezza Informatica (Laurea Magistrale in Ingegneria Informatica e dei Sistemi per le Telecomunicazioni). E' anche titolare del corso di Infrastrutture per il Governo Digitale presso il corso di Laurea in Giurisprudenza dell'omonima facoltà dell'Ateneo. E' stato titolare di numerosi corsi all'interno di Master e Scuole di Specializzazione e ha fatto parte del Consiglio Scientifico di alcuni Master universitari presso l'Università di Reggio Calabria e l'Università della Calabria.

Le sue attività di ricerca si inquadrano nel contesto delle Basi di Dati e della Rappresentazione della Conoscenza. In particolare i suoi interessi di ricerca includono:

- (1) Formalismi Logici per la Rappresentazione della Conoscenza,
- (2) Information Security e E-Government,
- (3) Model Checking e Logiche Temporalì,
- (4) Istogrammi e OLAP approssimato,
- (5) Complessità e potere espressivo di formalismi logici,
- (6) Agenti Intelligenti e User Profiling,
- (7) Social Network Analysis e Sistemi Peer-to-Peer, e
- (8) Data Streams.

E' autore di circa cento lavori scientifici. Ha pubblicato in riviste scientifiche di primo livello e Proceeding di Conferenze Internazionali. E' stato revisore per svariate riviste scientifiche e membro di comitati scientifici di conferenze. Ha pubblicato in riviste scientifiche di primo livello come Artificial Intelligence, Journal of Computer and System Sciences, Journal of Computer Security, International Journal of Information Security, IEEE Transaction on Data Knowledge Engineering, e Proceeding di Conferenze Internazionali. Ha svolto, in collaborazione, recenti ricerche sulla firma digitale che per il loro impatto sono state riprese anche dalla stampa nazionale (Panorama, numero 26, di giugno 2008). Inoltre, tali risultati scientifici hanno condizionato la revisione delle norme tecniche sulla firma digitale in Italia (DPCM 30 marzo 2009), come emerge dal confronto tra l'art. 3 comma 3 del DPCM 30 marzo 2009 e il corrispondente articolo della bozza del nuovo DPCM che sta per essere pubblicato (fonte DigitPA, comunicazione personale). Sul sito scholar.google.com risultano circa 850 citazioni a lavori in cui il Prof. Buccafurri è autore.

E' Associate Editor della rivista internazionale "Information Science" – Elsevier, di fascia 1 nella classificazione ANVUR. E' inoltre membro dell'editorial board delle riviste internazionali: (1) "Large Scale Data and Knowledge Centred" - LNCS Transactions Sublime – Springer; (2) "The Open Information Systems Journal" - Bentham Science Publishers (ISSN: 1874-1339); (3) Journal of Data Mining, Modelling and Management, Inderscience Publisher, ISSN (Online): 1759-1171 (Print): 1759-1163; (4) "Advancing in Artificial Intelligence" - Hindawi Publishing Corporation, ISSN: 1687-7470. E' stato co-chair del Program Committee delle 10th e 11th International Conference on Electronic Commerce and Web Technologies, 2009 e 2010. E' program chair di 21th Italian Symposium on Advanced Database Systems (SEBD 2013).

E' membro di Comitati di Programma di conferenze nazionali e internazionali. Tra queste: IJCAI 2013 (International Joint Conference on Artificial Intelligence), EC-Web 2013 (International Conference on Electronic Commerce and Web Technologies), ECAI 2012 (The biennial European Conference on Artificial

Intelligence), IJCAI 2009 (Twenty-first International Joint Conferences on Artificial Intelligence) - Pasadena, California; The ACM International Conference on Pervasive Services (ICPS 2009) - London (Uk) 2009; The 2009 IEEE International Joint Conference on Computational Sciences and Optimization (IEEE CSO 2009) - China 2009; The 2nd International Symposium on Financial Information Processing (FIP 2009) - China, 2009; The 2009 International Conference on Business Intelligence and Financial Engineering (BIFE'2009) - China 2009; Workshop of the Italian Association for Artificial Intelligence (AI\*IA) "Agenti e Vincoli" 2004; RCRA (Knowledge Representation and Automated Reasoning) 2005; ASP 2005 (Answer Set Programming) - Bath, Uk, ECAI 2006 - European Conference on Artificial Intelligence 2006; The 14th RCRA workshop Experimental Evaluation of Algorithms for Solving Problems with Combinatorial Explosion 2007; SEBD (Advanced Database Systems) 1999; SEBD (Advanced Database Systems) 2002; SEBD (Advanced Database Systems) 2005; SEBD (Advanced Database Systems) 2006; SEBD (Advanced Database Systems) 2008, SEBD (Advanced Database Systems) 2009.

Segue una lista (parziale) delle Conferenze e delle Riviste per le quali ha prestato la sua opera di revisore: LID '96 (International Workshop on Logic in Databases 1996), LPNMR '99 (Logic Programming and Nonmonotonic Reasoning 1999), DAWAK 2000 (International Conference on Data Warehousing and Knowledge Discovery 2000), PODS 2000 (Symposium on Principles of Database Systems 2000), DEXA 2001 (Data Bases and Expert Systems 2001), LPNMR 2001 (Logic Programming and Nonmonotonic Reasoning 2001), DAWAK 2002 (International Conference on Data Warehousing and Knowledge Discovery 2002), ICDE 2002 (International Conference on Data Engineering 2002), SEBD 2003 (Sistemi Evoluti per Basi di Dati 2003), DAWAK 2003 (International Conference on Data Warehousing and Knowledge Discovery 2003), IJCAI 2003 (International Joint Conference on Artificial Intelligence 2003) ITCC 2004 (International Conference on Information Technology: Coding and Computing), IDEAS 2004 (International Database of Information Technology: Coding and Computing), LPNMR 2005 (Logic Programming and Nonmonotonic Reasoning 2005), ICDT 2005 (International Conference on Database Theory 2005), PODS 2007 (Symposium on Principles of Database Systems), IEEE Transactions on Data and Knowledge Engineering, Journal of Computer Security, IOS press, Artificial Intelligence Communications, IOS Press, Annals of Mathematics and Artificial Intelligence, Springer, Theoretical Computer Science, Elsevier, Cognitive Systems Research Journal, Elsevier, Data Knowledge Engineering, Elsevier, Journal of Logical Methods in Computer Science, Journal of Applied Logic, Elsevier, www-journal, Springer, Information Sciences, Elsevier, IEEE Internet Computing. E' stato l'organizing committee chair della conferenza internazionale AGP 2003, curandone l'edizione degli atti.

Ha svolto il ruolo di coordinatore in alcuni progetti di ricerca. E' Responsabile scientifico dell'Unità "Università di Reggio Calabria" nel progetto PRIN 2010-2011 denominato TENACE, sulla protezione da attacchi informatici delle infrastrutture critiche, svolto in collaborazione da 10 diverse Università coordinate dall'Università di Roma "La Sapienza". E' stato Responsabile scientifico dell'Unità "Università di Reggio Calabria" nel progetto PRIN 2008 denominato EASE, svolto in collaborazione con il Politecnico di Milano (che ha svolto il ruolo di coordinamento nazionale), l'Università della Calabria e l'Università di Roma Tre. E' stato Responsabile scientifico dell'Unità "Università di Reggio Calabria" nel progetto PRIN 2005 denominato QUADRANTIS, svolto in collaborazione con il Politecnico di Bari, l'Università di Torino e il Politecnico di Milano (che ha svolto il ruolo di coordinamento nazionale).

E' stato responsabile del nodo "University di Reggio Calabria" nel progetto internazionale WASP (Working Group on Answer Set Programming) IST-2001-37004, 5th framework programme, Information Society Technologies, Action Line FET, e nel progetto nazionale del Consiglio Nazionale delle Ricerche SP1: Reti Internet: efficienza, integrazione e sicurezza -Legge 449/97 e nel Progetto FEAST - Fundamentos y Extensiones de la tecnología (Ministerio de Ciencia e Innovación - Spain).

E' membro dell'IEEE Society. Ha ricoperto vari ruoli Accademici e di coordinamento in Progetti di Ateneo. Il Prof. Buccafurri è responsabile scientifico del laboratorio di Ingegneria Informatica presso il DIMET ed è componente del collegio dei docenti nel dottorato in Ingegneria dell'Informazione attivato presso lo stesso dipartimento DIMET. Il Prof. Buccafurri ha inoltre ricoperto il ruolo di Delegato del Rettore per l'Informatica di Ateneo ed è attualmente Presidente dei Corsi di Studio Magistrale in Ingegneria Informatica e dei Sistemi per le Telecomunicazioni.

*segue CV in inglese*

# Curriculum Vitae

## of Francesco Buccafurri

Francesco Buccafurri is a full professor of computer science in the Department of Computer Science, Electronics, Mathematics and Transportation (DIMET) at the University "Mediterranea" of Reggio Calabria, Italy. In 1991 he took the "Laurea" degree in Computer Science Engineering Summa cum laude (after a five year course) at the University of Calabria, Italy. From 1991-1992 he held a fellowship position at CRAI (Center for Research and Application in Computer Science - Rende (CS)) working on the topic: "logic-based knowledge base systems". In 1995 he took the PhD degree in computer science at the University of Calabria (after a three years course) with thesis "Ordered Logic for Knowledge Representation: Semantics, Complexity and Expressive Power" (original title: "Logica Ordinata per la Rappresentazione della Conoscenza: Semantica, Complessita' ed Espressività"). In 1996 he was visiting researcher at the Information System Department of the Vienna University of Technology, Austria, where he joined the Database and AI group and a scientific collaboration with such a group (in particular with Prof. Georg Gottlob and Prof. Thomas Eiter) started and is still alive. From 1995 to 1997 he was Temporary Professor (ex Art. 100 del DPR 382/80) at the University of Calabria. Since May 2, 1997 he holds a permanent position (first as an Assistant Professor, then as an Associate Professor and finally as a Full Professor) at the University of Reggio Calabria, Faculty of Engineering. There, he is the regular Professor of the course Theory of Computation (in the Laurea Specialistica in Telecommunication Engineering), the course C++ programming and Algorithms and Data Structures, the course Operating Systems (in the Laurea in Telecommunication Engineering), and the course Information Security (in the Laurea Magistrale in ICT Engineering). He also is responsible of the course E-Government, Faculty of Law (Laurea in Law). He was responsible of a number of computer science courses within Master courses and "Scuola di Specializzazione" courses at the University of Reggio Calabria and the University of Calabria, participating to their Scientific Committee. His research activity mainly falls in the field of Databases and Knowledge Representation. In particular, his research interests include:

- (1) Logic Formalisms for Knowledge Representation,
- (2) Information Security and E-government,
- (3) Model Checking and Temporal Logics,
- (4) Histograms and approximate OLAP,
- (5) Complexity and Expressive Power of Logic Formalisms,
- (6) Intelligent Agents and User Profiling,
- (7) Social Network Analysis and Peer-to-Peer Systems,
- (8) Data Streams.

He is author of about one hundred papers. He has published in top level international journals, as Artificial Intelligence, Journal of Computer and System Sciences, Journal of Computer Security, International Journal of Information Security, IEEE Transactions on Data and Knowledge Engineering, and proceedings of international conferences. He served as a referee for the international journals and he was member of conference program committees. He recently developed, in collaboration, some researches about digital signature which, for their impact, have been reported by the national magazine Panorama (number 26, June 2008 - Ed. Mondadori). Moreover, these scientific results have conditioned the revision of the technical rules about digital signature in Italy (DPCM 30 marzo 2009), as it emerges by comparing the art. 3.3. of the DPCM 30 marzo 2009 and the corresponding article of the draft of the new DPCM which is going to be published (source of this information: DigitPA, through personal communication). At scholar.google.com there are about 850 citations to papers authored by Prof. Buccafurri (in collaboration).

He is Associate Editor of the International journal "Information Science" – Elsevier, 1th class in the Italian ANVUR classification of scientific journals in computer science.

He is also an editorial board member of the international journals : (1) "Large Scale Data and Knowledge Centred" - LNCS Transactions Sublime – Springer; (2) "The Open Information Systems Journal" - Bentham Science Publishers (ISSN: 1874-1339); (3) Journal of Data Mining, Modelling and Management, Inderscience Publisher, ISSN (Online): 1759-1171 (Print): 1759-1163; (4) "Advancing in Artificial Intelligence" - Hindawi Publishing Corporation, ISSN: 1687-7470.

He was co-chair of the Program Committee of the 10th and 11th International Conference on Electronic Commerce and Web Technologies, 2009 and 2010. He is program chair of the 21th Italian Symposium on Advanced Database Systems. He is member of the Program Committee of both national and international conferences. Among these: IJCAI 2013 (International Joint Conference on Artificial Intelligence), EC-Web

2013 (International Conference on Electronic Commerce and Web Technologies), ECAI 2012 (The biennial European Conference on Artificial Intelligence), IJCAI 2009 (Twenty-first International Joint Conferences on Artificial Intelligence) - Pasadena, California; The ACM International Conference on Pervasive Services (ICPS 2009) - London (Uk) 2009; The 2009 IEEE International Joint Conference on Computational Sciences and Optimization (IEEE CSO 2009) - China 2009; The 2nd International Symposium on Financial Information Processing (FIP 2009) - China, 2009; The 2009 International Conference on Business Intelligence and Financial Engineering (BIFE'2009) - China 2009; Workshop of the Italian Association for Artificial Intelligence (AI\*IA) "Agenti e Vincoli" 2004; RCRA (Knowledge Representation and Automated Reasoning) 2005; ASP 2005 (Answer Set Programming) - Bath, Uk ECAI 2006 - European Conference on Artificial Intelligence 2006; The 14th RCRA workshop Experimental Evaluation of Algorithms for Solving Problems with Combinatorial Explosion 2007; SEBD (Advanced Database Systems) 1999; SEBD (Advanced Database Systems) 2002; SEBD (Advanced Database Systems) 2005; SEBD (Advanced Database Systems) 2006; SEBD (Advanced Database Systems) 2008, SEBD (Advanced Database Systems) 2009.

Here an incomplete list of Conferences and Journals where he served as a referee: LID '96 (International Workshop on Logic in Databases 1996), LPNMR '99 (Logic Programming and Nonmonotonic Reasoning 1999), DAWAK 2000 (International Conference on Data Warehousing and Knowledge Discovery 2000), PODS 2000 (Symposium on Principles of Database Systems 2000), DEXA 2001 (Data Bases and Expert Systems 2001), LPNMR 2001 (Logic Programming and Nonmonotonic Reasoning 2001), DAWAK 2002 (International Conference on Data Warehousing and Knowledge Discovery 2002), ICDE 2002 (International Conference on Data Engineering 2002), SEBD 2003 (Sistemi Evoluti per Basi di Dati 2003), DAWAK 2003 (International Conference on Data Warehousing and Knowledge Discovery 2003), IJCAI 2003 (International Joint Conference on Artificial Intelligence 2003) ITCC 2004 (International Conference on Information Technology: Coding and Computing), IDEAS 2004 (International Database of Information Technology: Coding and Computing), LPNMR 2005 (Logic Programming and Nonmonotonic Reasoning 2005), ICDT 2005 (International Conference on Database Theory 2005), PODS 2007 (Symposium on Principles of Database Systems), IEEE Transactions on Data and Knowledge Engineering, Journal of Computer Security, IOS press, Artificial Intelligence Communications, IOS Press, Annals of Mathematics and Artificial Intelligence, Springer, Theoretical Computer Science, Elsevier, Cognitive Systems Research Journal, Elsevier, Data Knowledge Engineering, Elsevier, Journal of Logical Methods in Computer Science, Journal of Applied Logic, Elsevier, www-journal, Springer, Information Sciences, Elsevier, IEEE Internet Computing.

He was the organizing committee chair of the international conference AGP 2003, and also the editor of the conference Proceedings. He played the role of scientific coordinator of a number of research projects.

He is the coordinator for the University of Reggio Calabria Unit in the national project PRIN 2010-2011 "TENACE", about the protection against cyber attacks on critical infrastructures, developed in cooperation with other 9 Italian universities coordinated by Università di Roma "La Sapienza". He was the coordinator for the University of Reggio Calabria Unit in the international project WASP (Working Group on Answer Set Programming) IST-2001-37004, 5th framework programme, Information Society Technologies, Action Line FET, in the project FEAST - Fundamentos y Extensiones de la tecnología (Ministerio de Ciencia e Innovación - Spain), and in the national CNR project SP1: Reti Internet: efficienza, integrazione e sicurezza - Law 449/97. He was the coordinator for the University of Reggio Calabria Unit in the national project PRIN 2005 "Quadrantis", funded by the Italian Ministry of University and Research (MUR), developed in cooperation with other three Italian universities (Technical University of Milan, University of Turin, Technical University of Bari).

He was the coordinator for the University of Reggio Calabria Unit in the national project PRIN 2008 "EASE", funded by the Italian Ministry of University and Research (MUR), developed in cooperation with other three Italian universities (Technical University of Milan, University of Calabria, University of Rome "Tre").

He is member of the IEEE Society. He is research consultant for the National Research Center (CNR) Institute ICAR, placed in Naples, Cosenza and Palermo. He played the role of coordinator in a number of projects of the University. Prof. Buccafurri is the head of the Computer Science Laboratory of the DIMET Department, and he is member of the DIMET Commission of the PhD in ICT. Prof. Buccafurri played also the role of delegate of the Rector for the Information Systems and he is currently the Dean of the Curriculum in Computer Science and Telecommunication Engineering (Laurea Magistrale in Ingegneria Informatica e dei Sistemi per le Telecomunicazioni).