CURRICULUM VITAE

Fausto Rabitti

Fausto Rabitti is actually Research Director at ISTI (Information Science and Technology Institute) of the National Research Council (CNR) in Pisa, which is the largest CNR institute in computer science.

He was born in Modena (Italy) on May 4th, 1952. After secondary education (Liceo Scientifico), he attended the University of Pisa (Italy), at the Department of Computer Science. He was awarded of a scholarship from the National Research Council of Italy (CNR) to found a thesis on the design and implementation techniques for a highly parallel operating system. He also assisted the implementation of the prototype operating system in Assembler under IBM VM/370. On July 8, 1976, he received the "Laurea" degree in Computer Science, with full marks and honors (110/110 "cum laude").

In 1977 he served, one year long, in the Italian Air Force for the compulsory military service. Then, he won a Research Fellowship at the Information Processing Institute (IEI) of CNR in Pisa. Under this appointment, he performed research activity for a two-year period in the area of distributed systems, mainly on two topics: analysis and design of computer communication networks, and problems such as query processing and concurrency control on distributed database management systems.

Starting Febr. 1980, for two years, he received a Research Fellowship at the Computer Systems Research Group of the University of Toronto (Canada). He worked in the group of Prof. D. Tsichritzis on a research project of a distributed database/message management system for application in the area of Office Information Systems. His particular task was the study and design of a distributed query processing facility, and the underlying local network package, for this special class of database systems. He also was in charge of the implementation of this facility on a prototype system, called OFS, using the C programming language under UNIX operating system, over a local network of micro/mini computers of the DEC PDP-11 line.

In June 1982 he won a position of Staff Researcher at the IEI Institute of CNR in Pisa. He worked in the area of distributed database management systems (participation at "Progetto Finalizzato DATANET", participation at EEC Pre-development Study on Distributed Data Management Systems), office information systems, multimedia databases and object oriented databases.

From 1987 to 1988, he was at MCC (Austin, Texas) as Visiting Scientist in the group lead by Won Kim. He worked in project ORION, an object oriented database system developed in Common List (CLOS) environment and especially suitable for AI, CAD and multimedia applications. In the project, he developed a formal model for the ORION authorization mechanism and for the object oriented query language, and was involved in the design of the query processor.

In April 1995 he won a position of Research Director at the CNUCE Institute of the CNR in Pisa, where he was managing the Multimedia and Networking Department. Since 2002 he is Research Director at ISTI (Information Science and Technology Institute) of CNR in Pisa, at the Networked Multimedia Information Systems Lab.

He has worked more specifically on research ares such as:
- integration of database management and information retrieval techniques for handling documents containing text and data,
- evaluation of efficient access methods to text documents in office environment,
- design of document oriented interfaces to database management systems,
- study of an object oriented data model for multi-media documents,
- study of query languages and query processing techniques in systems managing large volumes of multimedia data.
- study of the retrieval-by-content problem on large image data bases.
- formal models of authorization in object oriented databases
- formal description of structures and operations in object oriented databases
- study of query languages and query processing techniques in object oriented databases
- flexible concurrency control techniques in object store systems with physical independence.
- signature techniques for multi-attribute access,
- principles and methodologies for the design and implementation of multimedia object stores, demanding the use of storage hierarchies, delay-sensitive and real-time retrieval, synchronization of multimedia data.
- structures and algorithms for similarity search in metric spaces,
- access structures for XML databases.

He has been involved in several national and international projects, often managing the CNR research unit. in the project. He was first involved in three ESPRIT projects, founded by the European Community, in the area of office systems: the MULTOS project (1985-90) developed a prototype of a multi-media document filing system; the TODOS (1986-88) project developed a methodology, supported by automatic tools, for the design and quick prototyping of office information systems; the COMANDOS (1986-89) project addressed the distributed aspects of office information systems, in particular from the point of view of the systems, languages, multimedia data management. He was then involved, as CNR unit coordinator, in project FIDE – Formally Integrated Data Environmeny (1989-92) and project FIDE2 (1992-95), in the context of the ESPRIT Basic Research Action program, having the objective of building a new integrated technology (i.e. theories and tools) to replace the now ill-fitting technologies of database systems and programming languages and environments. From 1995 to 1998, he has managed the CNR unit in a European Long Term Research project, called Hermes (Foundations of High Performance Multimedia Information Management Systems). He is now managing the CNR unit in two Italian projects: ECD (Enhanced Content Delivery) and VICE (Virtual Communities for Education).

He was Program Committee Chairman in the "9th ACM-SIGIR International Conference on Research and Development in Information Retrieval", held in Pisa on Sept. 8-10, 1986, and was the editor of the proceedings. He was General Chairman and Program Committee Chairman of IWOSS'99 (International Workshop On Similarity Search), Florence, Sept. 1-2, 1999, Program Committee Chairman of SEBD-1996, 4th Italian Symposium on Advanced Database Systems, San Miniato, Pisa, July 3 - 5, 1996, General Chairman of SEBD-2002, 10th Italian Symposium on Advanced Database Systems, Porto Ferraio, Isola d'Elba, June 19 - 21, 2002, and General Co-Chairman for Europe of the Second International Human.Society@Internet Conference, Seoul, Korea, June 18-20, 2003.

He has been (or he actually is) member of the Program Committee of the following international conferences:
- 10th ACM-SIGIR International Conference on Research and Development Information Retrieval, New Orleans, USA, June 3-5 1987.
- RIAO-88 Conference on User-Oriented Content-Based Text and Image Handling, MIT, Cambridge, Massachusetts, USA, March 21-24 1988.
- ACM-IEEE Conference on Office Information Systems, Palo Alto, California, USA, March 23-25 1988.
- 11th ACM-SIGIR International Conference on Research and Development Information Retrieval, Grenoble, France, June 13-15 1988. He also chaired a session of this conference.
- 12th ACM-SIGIR International Conference on Research and Development Information Retrieval, Cambridge, Massachusetts, USA, June 25-28 1989. He also chaired a session of this conference.
- 8th International Conference on Entity-Relationship Approach, Toronto, Canada, Oct. 18-20 1989.
- EDBT-90, 2nd International Conference on Extending Data Base Technology, Venice, Italy, March 26-30, 1990.
- VLDB-90, 16th International Conference on Very Large Data Bases, Brisbane, Australia, Aug. 13-16, 1990.
- 13th ACM-SIGIR International Conference on Research and Development Information Retrieval, Brussels, Belgium, Sept. 5-7 1990.
- International Conference on Multimedia Information Systems, Singapore, Jan. 16-18 1991.
- Second International Conference on Deductive and Object-Oriented Databases, Munich, FRG, Dec. 16-18, 1991.
- 14th ACM-SIGIR International Conference on Research and Development Information Retrieval, Chicago, USA, Sept. 1991.
- 15th ACM-SIGIR International Conference on Research and Development Information Retrieval, Copenhagen, Denmark, June 1992.
- Fifth International Workshop on Persistent Object Systems, San Miniato (Pisa), Italy, September 1992.
- VLDB-93, 19th International Conference on Very Large Data Bases, Dublin, Ireland, Aug. 23-27, 1993.
- Sixth International Workshop on Persistent Object Systems, Tarascon, France, September 1994.
- VLDB-95, 20th International Conference on Very Large Data Bases, Zurich, Switzerland, August 1995.

- SDAIR '95, Symposium on Document Analysis and Information Retrieval, Las Vegas, Nevada, USA, April 24-26, 1995 .
- ACM SIGMOD'96 International Conference, Montreal, Canada, June 4-6, 1996.
- VLDB-97, 21st International Conference on Very Large Data Bases, Athens, Greece, August 1997.
- EDBT-98, 6th International Conference on Extending Data Base Technology, Valencia, Spain, March 23-27, 1998.
- Eighth International Workshop on Persistent Object Systems: Design, Implementation and Use, Sausalito, California, USA, 30th August - 2nd September 1998
- The 18th International Conference on Distributed Computing Systems, Amsterdam, The Netherlands, May 26 - 29, 1998
- DBPL-99 - The 9th International Workshop on Database Programming Languages, Kinloch Rannoch, Scotland, Sept. 1-3, 1999
- POS9, 9th International Workshop on Persistent Object Systems: Design, Implementation and Use, Lillehammer, Norway, Sept. 6-8, 2000.
- WISE-2000, 1st International Conference on Web Information Systems Engineering, Hong Kong, 19-20 June, 2000.
- DEXA-2000, 11th International Conference Database and Expert Systems Applications, Greenwich UK, September 4-8, 2000.
- 1st DELOS Network of Excellence Workshop on "Information Seeking, Searching and Querying in Digital Libraries", Zurich, Switzerland, 11-12 December 2000.
- SEBD-2001, 9th Italian Symposium on Advanced Database Systems, Venice, Italy, June 27 – 29, 2005.
- DEXA-2001, 12th International Conference Database and Expert Systems Applications, Munich, Germany, September 3-7, 2001.
- MIS-2001, 7th Multimedia Information Systems Workshop. Capri, Italy, 7-9 November, 2001.
- DEXA-2002, 13th International Conference Database and Expert Systems Applications, Aix-en-Provence, France, September 2-6, 2002.
- MIR-2002, 4th Intl Workshop on Multimedia Information Retrieval. Juan-les-Pins, French Riviera, Dec. 6-7, 2002.
- CAISE-03, The 15th Conference on Advanced Information Systems Engineering, Klagenfurt/Velden, Austria, June 16-20, 2003.
- DEXA-2003, 14th International Conference Database and Expert Systems Applications, Prague, Czech Republic, September 1-5, 2003.
- IASTED-DBA-2004 International Conference on Databases and Applications, Innsbruck, Austria, February 17-19, 2004.
- DEXA-2004, 15th International Conference Database and Expert Systems Applications, Zaragoza, Spain, , August 30 - September 3, 2004.
- IASTED-DBA-2005 International Conference on Databases and Applications, Innsbruck, Austria, February 14-16, 2004.
- DEXA-2005, 16th International Conference Database and Expert Systems Applications, Copenhagen, Denmark, , August 22 - 26, 2005.
- EWSA-2005, Second European Workshop on Software Architecture, Pisa, Italy, June 13 – 14, 2005.
- SEBD-2005, 13th Italian Symposium on Advanced Database Systems, Bressanone, Italy, June 22 – 24, 2005.

- WMS-2005, 3rd Special Workshop on Multimedia Semantics, Pisa Italy, June 24 -26, 2005.

Since 1987 he is member of the Editorial Board of Information Processing and Management, an international journal of Pergamon, New York.

He is a referee of several scientific journals, such as "Information Processing and Management", "ACM Transactions on Information Systems", "ACM Transactions on Database Systems", "IEEE Transactions on Knowledge and Data Engineering", "IEEE Computer", VLDB Journal.

From 2000 to 2003 he was Chairman of EDRG (ERCIM Database Research Group), a working group of the European Research Consortium in Informatics and Mathematics.