

CURRICULUM VITAE

Pier Francesco Cortese

Personal Data

Place and Date of Birth Roma, 10/03/1977
Address: Via Roccagorga 15 - 00179 ROMA (Italy)
Phone number: 06-7807255
Cell Phone: 328-6566054
E-mail: cortese@dia.uniroma3.it

Studies

- 03/2007** PhD in Computer Science and Automation, “Roma Tre” University, Italy.
Thesis: “C-Planarity of Clustered Graphs: Methodologies, Algorithms, and Applications ”.
Advisor: prof. Giuseppe Di Battista.
- 7/2003** Qualification for the profession of Engineer, University of “Roma Tre”, Italy.
- 3/2003** Five years degree in Computer Science Engineering. University of “Roma 3”, Italy
Thesis: “Nuove metodologie per il test di planarità sui grafi”.
Advisor: prof. Giuseppe Di Battista.
Rating: 110/100 with honours
- 7/1995** General Certificate of Education, Liceo Scientifico Statale “F. Borromini”, Rome.
Rating: 60/60.
-

Basic Skills

Desktop Operating Systems:

DOS, Windows 3.11, Windows 95/98/ME/NT/2000/XP/VISTA/Seven/Windows 8, Linux Slackware, Red Hat, Debian, Ubuntu Desktop.

Applications:

Microsoft Office, Microsoft Visual Studio, Adobe Photoshop, Adobe Illustrator, Adobe Dreamweaver, SmartDraw, CorelDraw, CVS, SVN, LaTeX

Advanced Skills

Server Operating Systems:

Windows Server 2008 Web Edition, Linux Ubuntu Server.

Programming Languages and Libraries:

Pascal, C, C++, Visual C++, Java, JNI, JavaScript, VBScript, ASP, PHP, HTML, ML, CaML, Plasm, LEDA, GDTToolkit, Python, DTML.

Development of C/C++ software libraries in Linux environment.

Development of web applications based on Python and DTML in the Plone/Zope environment.

Protocols and network technologies:

ISO/OSI, Ethernet, TCP/IP, BGP, RTSP, HTTP, FTP, SMTP, POP3.

Development of web applications. Servers and domains management

Database: Entity-Relationship model, SQL, MySQL.

RFID: Standard ISO/IEC 18000, EPC Global standards, PUF-based tag (physically unclonable function)

CMS: Development of web applications based on Plone/Zope, Wordpress.

Languages

Good written and spoken English.

Research Projects

- **SAT** - *Sistema Avanzato di Tracciabilità*. Sistema avanzato di tracciatura delle merci nei trasporti intermodali mediante tecnologia RFID.
- **GDTToolkit**, *Graph Drawing Toolkit*
- **MainStream**, *Algorithms for Massive Information Structures and Data Streams*
- **ALGO-NEXT**, *Algorithms for the Next Generation Internet and Web: Methodologies, Design and Applications*
- **DELIS**, *Dynamically Evolving, Large Scale Information Systems*
- **COSIN**, *COevolution and Self-organisation In dynamical Networks*

Publications

Journals

1. Patrizio Angelini, Pier Francesco Cortese, Giuseppe Di Battista, Maurizio Patrignani. **Topological Morphing of Planar Graphs**. Theoretical Computer Science. 514:2-20. 2013.
2. Pier Francesco Cortese, Giuseppe Di Battista, Maurizio Patrignani, Maurizio Pizzonia. **On Embedding a Cycle in a Plane Graph**. Discrete Mathematics. 309(7):1856-1869. Apr 2009.
3. Pier Francesco Cortese, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, Maurizio Pizzonia. **C-Planarity of C-Connected Clustered Graphs**. Journal of Graph Algorithms and Applications. 12(2):225-262. Nov 2008.
4. Pier Francesco Cortese, Giuseppe Di Battista, Antonello Moneta, Maurizio Patrignani, Maurizio Pizzonia. **Topographic Visualization of Prefix Propagation in the Internet**. IEEE Transactions on Visualization and Computer Graphics. 12(5):725-732. 2006.
5. Pier Francesco Cortese, Giuseppe Di Battista, Maurizio Patrignani, Maurizio Pizzonia. **Clustering Cycles into Cycles of Clusters**. Journal of Graph Algorithms and

Applications, Special Issue on the 2004 Symposium on Graph Drawing, GD '04. 9(3):391-413. 2005.

Conferences

1. Pier Francesco Cortese, Maurizio Patrignani. **Clustered Planarity = Flat Clustered Planarity**. In, Therese Biedl, Andreas Kerren, editors, Graph Drawing and Network Visualization 26th International Symposium, GD 2018, Barcelona, 26-28 September 2018, Revised Selected Papers, Springer Verlag, Lecture Notes in Computer Science, 2018.
2. Pier Francesco Cortese, Francesco Gemmiti, Bernardo Palazzi, Maurizio Pizzonia, Massimo Rimondini. **Efficient and Practical Authentication of PUF-based RFID Tags in Supply Chains**. In Proc. IEEE International Conference on RFID-Technology and Applications (RFID-TA 2010), pages 182-188, 2010.
3. Patrizio Angelini, Pier Francesco Cortese, Giuseppe Di Battista, Maurizio Patrignani, **“Topological Morphing of Planar Graphs”**, to appear in the 16th Symposium on Graph Drawing (GD2008).
4. Pier Francesco Cortese, Giuseppe Di Battista, Fabrizio Frati, Luca Grilli, Katharina Anna Lehmann, Giuseppe Liotta, Maurizio Patrignani, Ioannis Tollis, Francesco Trotta. **On the Topologies of Local Minimum Spanning Trees**. In Third Workshop on Combinatorial and Algorithmic Aspects of the Networks (CAAN '06), volume 4235 of Lecture Notes Comput. Sci., pages 31-44, 2006.
5. Pier Francesco Cortese, Giuseppe Di Battista, Maurizio Patrignani, Maurizio Pizzonia. **On Embedding a Cycle in a Plane Graph**. In 13th International Symposium on Graph Drawing, volume 3843 of Lecture Notes Comput. Sci., pages 46-60, 2005.
6. Pier Francesco Cortese, Giuseppe Di Battista. **Clustered Planarity**. In Twenty-first annual symposium on Computational Geometry (proc. SoCG 05), ACM, pages 30-32, 2005.
7. Pier Francesco Cortese, Giuseppe Di Battista, Maurizio Patrignani, Maurizio Pizzonia. **Clustering Cycles into Cycles of Clusters**. In 12th International Symposium on Graph Drawing (Proc. GD '04), volume 3383 of Lecture Notes Comput. Sci., pages 100-110, 2004.
8. John Michael Boyer, Pier Francesco Cortese, Maurizio Patrignani, Giuseppe Di Battista. **Stop Minding Your P's and Q's: Implementing a Fast and Simple DFS-based Planarity Testing and Embedding Algorithm**. In Graph Drawing (Proc. GD '03), volume 2912 of Lecture Notes Comput. Sci., pages 25-36, 2004.

Technical Reports

1. Pier Francesco Cortese, Maurizio Patrignani. **Clustered Planarity = Flat Clustered Planarity**. Technical Report arXiv:1808.07437, Cornell University, 2018.
2. Pier Francesco Cortese, Francesco Gemmiti, Bernardo Palazzi, Maurizio Pizzonia, Massimo Rimondini. **Efficient and Practical Authentication of PUF-based RFID Tags**. Technical Report RT-DIA-150-2009, Dept. of Computer Science and Automation, Roma Tre University, 2009.
3. Patrizio Angelini, Pier Francesco Cortese, Giuseppe Di Battista, Maurizio Patrignani. **Topological Morphing of Planar Graphs**. Technical Report RT-DIA-134-2008, Dept. of Computer Science and Automation, Roma Tre University, 2008.
4. Pier Francesco Cortese, Giuseppe Di Battista, Fabrizio Frati, Luca Grilli, Katharina Anna Lehmann, Giuseppe Liotta, Maurizio Patrignani, Ioannis Tollis, Francesco Trotta. **On the Topologies of Local Minimum Spanning Trees**. Technical Report RT-001-06, Dip. Ingegneria Elettronica e dell'Informazione, Univ. Perugia, 2006.

5. Pier Francesco Cortese, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, Maurizio Pizzonia. **C-Planarity of C-Connected Clustered Graphs: Part I - Characterization**. Technical Report RT-DIA-109-2006, Dip. Informatica e Automazione, Univ. Roma Tre, 2006.
6. Pier Francesco Cortese, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, Maurizio Pizzonia. **C-Planarity of C-Connected Clustered Graphs: Part II - Testing and Embedding Algorithm**. Technical Report RT-DIA-110-2006, Dip. Informatica e Automazione, Univ. Roma Tre, 2006.
7. Pier Francesco Cortese, Giuseppe Di Battista, Antonello Moneta, Maurizio Patrignani, Maurizio Pizzonia. **Topographic Visualization of the Internet**. Technical Report RT-DIA-104-2005, Dip. Informatica e Automazione, Univ. Roma Tre, 2005.
8. Pier Francesco Cortese, Giuseppe Di Battista, Maurizio Patrignani, Maurizio Pizzonia. **On Embedding a Cycle in a Plane Graph**. Technical Report RT-DIA-100-2005, Dip. Informatica e Automazione, Univ. Roma Tre, 2005.
9. Pier Francesco Cortese, Giuseppe Di Battista, Maurizio Patrignani, Maurizio Pizzonia. **Clustering Cycles into Cycles of Clusters**. Technical Report RT-DIA-91-2004, Dip. Informatica e Automazione, Univ. Roma Tre, 2004.
10. John Michael Boyer, Pier Francesco Cortese, Maurizio Patrignani, Giuseppe Di Battista. **Stop Minding Your P's and Q's: Implementing a Fast and Simple DFS-based Planarity Testing and Embedding Algorithm**. Technical Report RT-DIA-83-2003, Dip. Informatica e Automazione, Univ. Roma Tre, 2003.

Refereeing

- SIAM Journal on Discrete Mathematics
- ACM SIGCOMM Computer Communication Review
- Software: Practice and Experience
- Journal of Graph Algorithms and Applications

- Graph Drawing 2008
- Graph Drawing 2007
- Graph Drawing 2006
- Graph Drawing 2005
- ICALP 2005
- WEA 2005
- Graph Drawing 2004
- Graph Drawing 2003

Teaching

- **4/2009**: "Didactics of Computer Networks", SSIS lazio
- **4/2008**: "Didactics of Computer Networks", SSIS lazio
- **From 10/2007 to 2/2008**: didactics support for the "Computer Networks I" course.
- **6/2007**: collaboration to the "C++ Language" course, organized by "Direzione Generale per il Personale Militare" and "Consiglio Nazionale delle Ricerche"
- **3/2007**: "Didactics of Computer Networks", SSIS lazio
- **3/2007**: "Computer Networks Lab", SSIS lazio
- **From 10/2005 to 2/2006**: didactics support for the "Computer Networks I", "Theoretical Computer Science I", and courses.

- **6/2006:** collaboration to the "C++ Language" course, organized by “ Direzione Generale per il Personale Militare” and “Consiglio Nazionale delle Ricerche”
- **1/2006:** collaboration to the Computer Networks course for the second level Master Progettisti di Sistemi Informatici, organized by “Direzione Generale per il Personale Militare” and “Consiglio Nazionale delle Ricerche”.
- **From 10/2005 to 2/2006:** didactics support for the “Computer Networks I”, “Computer Networks II”, “Theoretical Computer Science I”, and “Theoretical Computer Science II” courses.
- **1/2005:** collaboration to the "C++ Language" course, organized by “ Direzione Generale per il Personale Militare” and “Consiglio Nazionale delle Ricerche”
- **1/2006:** collaboration to the Computer Networks course for the second level Master “Progettisti di Sistemi Informatici”, organized by “Direzione Generale per il Personale Militare” and “Consiglio Nazionale delle Ricerche”.
- **10/2004:** didactics support for the “Computer Networks I”, and “Theoretical Computer Science II” courses.
- **10/2003:** didactics support for the “Computer Networks I” course.
- **5/2000:** didactics support for the “Database” course.

Previous Occupations

- **From 10/2009 to 11/2014:** Employee at [Team Service S.C.a.r.l.](#) Occupation: Intranet developing and management, server management
- **From 10/2008 to 9/2009:** Researcher at [Data Management S.p.A.](#)
- From 3/2007 to 9/2008: Postdoctoral researcher at Department of Computer Science and Automation, "Roma Tre" University.
- **10/2003:** Collaboration Agreement, Department of Computer Science and Automation, “Roma Tre” University. Occupation: didactics support for the “ Computer Networks I” course.
- **From 4/2003 to 10/2003:** Collaboration Agreement, Department of Computer Science and Automation, “Roma Tre” University. Occupation: realization of a graph drawing software library.
- **5/2000:** Collaboration Agreement, Department of Computer Science and Automation, “Roma Tre” University. Occupation: realization of didactics material for the “Databases” course.
- **From 3/2000 to 3/2003:** Students delegate within the Faculty of Engineering.

Other Activities

Voluntary assistant at "Meeting per l'Amicizia tra i Popoli" in Rimini.

Realization of posters and handbills.

Personal Computer assemblage.