

Curriculum Vitae et Studiorum of

Marco Pellegrini

Istituto di Informatica e Telematica del C.N.R.

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MACRO-AREA OF INTEREST

Information and Communication Technology (ICT)

RESEARCH INTERESTS

Applications of Algorithmic Techniques in Computational Biology, Information Retrieval, Computer Graphics, Computational Physics, and Networking. Design and Analysis of Algorithms, Computational Geometry, Computational Complexity.

EDUCATION

- | | | |
|-----------|---|--------------|
| 1986-1991 | New York University | New York, NY |
| | Ph.D. in Computer Science. February 1991. Thesis title: "Combinatorial and Algorithmic Analysis of Stabbing and Visibility Problems in 3-Dimensional Space". Subjects: Computational Geometry, Combinatorial Geometry, Analysis of algorithms. Thesis Advisor Prof. Richard Pollack. | |
| 1986-1988 | New York University | New York, NY |
| | M.Sc. in Computer Science. | |
| 1980-1986 | Politecnico of Milano | Milan, Italy |
| | Laurea in Electronic Engineering (Magna cum Laude) Major Software Engineering. Thesis Advisor Prof. Carlo Ghezzi. | |

CURRENT ACADEMIC/RESEARCH EMPLOYMENT

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| 1999- | C.N.R. | Pisa, Italy |
| | National Research Council (C.N.R.). Senior Researcher. From 1999 to 2002 at the Institute for Computational Mathematics (I.M.C). From 2002 to present at the Institute of Informatics and Telematics (I.I.T.) | |

PAST ACADEMIC/RESEARCH EMPLOYMENT

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| 1995-1999 | C.N.R. | Pisa, Italy |
| | National Research Council (C.N.R.), Researcher | |
| 1991-1995 | King's College | London, U.K. |
| | Lecturer in Computer Science | |
| 1991-1992 | International Computer Science Institute | Berkeley, CA |

Post Doctoral Researcher (September 1991-February 1992)

1988-1991 **Courant Institute of Mathematical Sciences** New York, NY
Research Assistant

PROJECT MANAGEMENT

- 2017-2019 **MIUR - Ministero dell'Istruzione,
dell'Università e della Ricerca**
Project: "The role of tandem repeats in neurodegenerative diseases: a genomic and proteomic approach". Total Budget 300,000 Euro. Unit PI. (call PRIN - Research Projects of National Relevance)
- 2017-2020 **Istituto Toscano Tumori**
Project "Eligibility of miRNAs modified by docetaxel in prostate cancer cells to plasma biomarkers in patients responsive and no more responsive to docetaxel". Total Budget 245,000 Euro. Unit PI.
- 2013-2016 **Istituto Toscano Tumori**
Project "The isolation and validation of miRNA/mRNA complexes to identify genes and pathways targeted by tumor suppressor miRNAs in prostate cancer cells". Total Budget 440,000 Euro. Unit PI.
- 2014-2016 **Arisla - Fondazione Italiana di Ricerca per la
Sclerosi Laterale Amiotrofica**
Project *Repeatals* - Genome-wide analysis of DNA tandem repeats in ALS: the role of Repeatome. Total Budget 170,000. Unit PI.
- 2012-2016 **MIUR Flag Project InterOmics**
Principal Investigator for the IIT Research unit. Financed by MIUR - Ministry of Education, University and Research. Budget for IIT 300,000 Euro in 2012. Unit PI.
- 2012- **Laboratory LISM (Laboratory for Integrative
System Medicine)** Pisa
Joint Laboratory financed by the Istituto di Informatica e Telematica of CNR and by the Istituto di Fisiologia Clinica of CNR (Research Agreement prot. IIT 0001696 of 14-March-2012). Principal Investigator for IIT. Initial Endowment 350,000 Euro.
- 2010-2012 **Regional Project POR Toscana 'BINET: Business Intelligence through Social Networks'** Pisa
Principal Investigator of the IIT Research Unit. Budget IIT 160,000 Euro.
- 2008-2011 **European Network of Excellence Virtual Physiological Human (VPH)**
Network of Excellence Virtual Physiological Human (VPH), contract n. 223920, VII PQ. Coordinator of the CNR unit in partnership with ERCIM (European Research Consortium for Informatics and Mathematics). Budget for CNR: 37,065 Euro

LEADERSHIP OF RESEARCH GROUPS

| | | |
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| 2012- | CNR Coordinator of the IIT-CNR unit of LISM (Laboratory for Integrative Systems Medicine) in partnership with IFC-CNR. | Pisa |
| 2008- | IIT-CNR Coordinator of the WebAlgo Group of IIT http://webalgo.iit.cnr.it/ | Pisa |
| 2007- | IIT-CNR Coordinator of the BioAlgo Group of IIT. http://bioalgo.iit.cnr.it/ | Pisa |
| 2005-2014 | IIT-CNR Leader of the Activity: INT.P02.003.003 Algoritmica per Bioinformatica. | Pisa |
| 2002-2004 | IIT-CNR Coordinator of the Computational Mathematics Research Group of IIT (during Sabbatic of Dr. Bruno Codenotti.) | Pisa |

OTHER MANAGERIAL TASKS

| | | |
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| 2004-2010 | Research Consortium "Gran Sasso" Representative of C.N.R. in the Technical Scientific Committee. | Gran Sasso, Italy |
| 2003- | Consortium DIMATIA (Discrete Mathematics Theoretical Computer Science and Applications) Representative of IIT-CNR in the DIMATIA Consortium. | Prague, Check Rep. |
| 2002- | IIT-CNR Member of the Institute Management Committee. | Pisa, Italy |
| 1995-2002 | IMC-CNR Member of the Scientific Committee of the Institute for Computational Mathematics of C.N.R. | Pisa, Italy |
| 1992-1995 | King's College Deputy Director of the Master in Advanced Computing (1992-1992), Member of the Library Committee of the School of Science and Engineering (1993-1994), Member of the Academic Policy Committee of the School of Science and Engineering (1995), Member of the Finance Committee of the school of Science and Engineering (1993-1994). | London, U.K. |

SERVICE ACTIVITIES

| | | |
|-------|---|-----------------|
| 2017- | BITS Società Italiana di Bioinformatica Member of the Steering Committee | Rome, Italy |
| 2017 | The 11th International AAAI Conference on Web and Social Media - ICWSM 2017 Member of the Program Committee | Montreal Canada |

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| 2017 | European Conference on Combinatorics, Graph Theory and Applications - EUROCOMB 2017 Member of the Program Committee | Vienna, Austria |
| 2017 | BIOINFORMATICS 2017 Member of the Program Committee | Porto, Portugal |
| 2016 | BIOINFORMATICS 2016 Member of the Program Committee | Rome, Italy |
| 2015 | Frontiers Associated Editor for "Frontiers in Bioinformatics and Computational Biology" | Lausanne, Switzerland |
| 2015 | WWW2015 - 24th International World Wide Web Conference Member of the Local Organizing Committee | Firenze, Italy |
| 2015 | Eurocomb 2015 - European Conference on Combinatorics, Graph Theory and Applications Member of the Program Committee | Bergen, Norway |
| 2015 | BIOINFORMATICS 2015 Member of the Program Committee | Lisbon, Portugal |
| 2014 | Frontiers Guest Editor of Frontiers Research Topic on "Repetitive structures in biological sequences: algorithms and applications" | Lausanne, Switzerland |
| 2014- | Tuscany Bioinformatics Days - Bioinformatiha Member of steering committee. Local chair in 2014. | Pisa |
| 2014 | 8th International AAAI Conference on Weblogs and Social Media (ICWSM) Member of the Program Committee | Ann Arbor, Michigan |
| 2014 | BIOINFORMATICS 2014 Member of the Program Committee | Eseo, France |
| 2014 | WWW2014 (Track on Social Networks and Graph Analysis) Member of the Program Committee | Seoul, South Korea |
| 2014 | Ph.D Committee of Beatrice Donati, Université Claude Bernard Lyon 1. Member | Lyon, France |

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| 2013 | <p>Eurocomb 2013 - European Conference on Combinatorics, Graph Theory and Applications General Chair and Program Committee co-chair</p> | Pisa |
| 2012 | <p>Workshop “Geometry, Structure and Randomness in Combinatorics” September 3-7, 2012 Co-organizer in partnership with “Centro di Ricerca Matematica Ennio De Giorgi” of Scuola Normale Superiore.</p> | Pisa |
| 2012 | <p>Workshop BINet 2012: Workshop on Business Intelligence and Network Analysis. 26 January 2012 Co-Chair of the Organizing Committee</p> | Pisa |
| 2012 | <p>SPIRE 2012: 19th International Symposium on String Processing and Information Retrieval, 21-25 Ottobre 2012. Member of the Program Committee</p> | Cartagena, Colombia |
| 2011 | <p>BITS 2011: 8th Annual Meeting of the Bioinformatics Italian Society. 20-22 Giugno 2011. Co-Chair of the Organizing Committee and Member of the Scientific Committee</p> | Pisa |
| 2011 | <p>IC3 2011: 4th International Conference on Contemporary Computing, Jaypee Institute of Information Technology, 6-8 Agosto 2011 Member of the Program Committee</p> | Uttar Pradesh, India |
| 2011 | <p>SPIRE 2011: 18th International Symposium on String Processing and Information Retrieval. 17-21 October 2011 Member of the Program Committee</p> | Pisa |
| 2011 | <p>Eurocomb 2011: European Conference on Combinatorics, Graph Theory and Applications. 29 August - 2 September 2011 Member of the Program Committee</p> | Budapest, Hungary |
| 2011 | <p>Bioinformatics 2011 - International Joint Conference on Biomedical Engineering Systems and Technologies 2011 Chair of the Programme Committee</p> | Roma, Italy |
| 2011 | <p>Symposium on Theoretical Aspects of Computer Science (STACS 2011)</p> | Dortmund, Germany |

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| | Program committee member. | |
| 2010 | Future Media Internet Coordination Action of the 7th FP Member of the Task Force on the Future Media Internet | |
| 2009 | European Conference on Combinatorics, Graph Theory and Applications (Eurocomb 09) Program committee member. | Bordeaux, France |
| 2008 | Nettab 2008 - Bioinformatics Methods for Biomedical Complex System Applications Member of the Scientific committee . | Varenna, Italy |
| 2008 | Ph.D Committee of Libertad Tansini, Chalmers University of Technology Opponent. | Goteborg, Sweden |
| 2007 | European Conference on Combinatorics, Graph Theory and Applications (Eurocomb 07) Program committee member. | Seville, Spain |
| 2006 | COMBSTRU School in Computational Complexity (CSCC06) Organizer. | Bertinoro, Italy |
| 2006 | Workshop on Algorithmic and Numerical Aspects in Web Search (ANAW) Organizer. | Pisa, Italy |
| 2006 | Ph.D. Committee of Johan Karlsson at Lulea University Opponent. | Lulea, Sweden |
| 2005 | Association for Computing Machinery 21st ACM Annual Symposium on Computational Geometry (ACM SoCG05). Organization Co-Chair. | Pisa, Italy |
| 2005 | Workshop Massive 2005 Organizer. | Pisa, Italy |
| 2004 | 2nd COMBSTRU Workshop on Algorithms and Combinatorics Organization Chair. | Venice, Italy |
| 2000 | European Association for Theoretical Computer Science European Symposium on Algorithms (ESA2000). Program Committee Member. | Saarbruecken, Germany |

1994 **Association for Computing Machinery** Saarbruecken, Germany
12th ACM Annual Symposium on Computational Geometry (ACM SoCG94).
Program Committee Member.

Referee for “Plos One”, “Bioinformatics”, “ACM Transactions on Computer Graphic”, “ACM Transactions on Computer Systems”, “Algorithmica”, “Applied Mathematics Letters”, “Calcolo”, “Computational Geometry, Theory and Applications”, “Discrete & Computational Geometry”, “Information Processing Letters”, “Journal of Computational Physics”, “Journal of Discrete Algorithms”, “Nordic Journal of Computing”. “Parallel algorithms and applications”, “SIAM Journal on Computing”, “The Computer Journal”, “Theoretical Computer Science”, “Journal of experimental Algorithm”, “Computer & Graphics”, “International Journal of Computational Geometry and Applications”, “IEEE Transactions on Computing”, “IEEE Journal on Selected Areas in Communications”, “Journal of Computational Biology”.

Referee for
ACM SoCG 2001, ACM Solid Modelling 1999, ESA 2002, ESA 2004, ESA 2006, ESA 2007, Eurographics 1999, Eurographics 2002, ICALP 1998, Latin 2004, Pacific Graphics 2001, STACS 1996, STACS 1998, STACS 2004, SWAT 2000, WADS 1997, WADS 2001, WAE 2001, WAOO 2006.

Member of ACM and BITS (Bioinformatics Italian Society).

Member of the Italian Interuniversity Mathematical School (SMI).

TEACHING

| | | |
|-----------|---|-----------------|
| 2005-2008 | University of Pisa Dept. of Computer Science. Course in Computational Geometry | Pisa, Italy |
| 2004 | University of Pisa Graduate Course in ”Randomized methods in Computational Geometry”. | Pisa, Italy |
| 2004 | University of Parma Undergraduate course in Operating Systems. | Parma, Italy |
| 2002-2003 | University of Parma Undergraduate Course in Algorithms and Data Structures. | Parma, Italy |
| 2000 | University of Pisa Graduate Course in ”Randomized methods in Computational Geometry”. | Pisa, Italy |
| 1999 | University of Florence Dept. of Mathematics. Course in Computational Geometry | Florence, Italy |
| 1997-1998 | University of Pisa Dept. of Computer Science. Course in Computational Geometry | Pisa, Italy |

(February 2006). Lulea University - Sveden (June 2006).

Introduction to proximity problems in high dimensional geometry. University of Siena (March 2005), University of Parma (December 2004) and University of Rome "La Sapienza" (January 2001).

Fast packet filtering on any number of attributes via point location. University of Bologna, Workshop on Algorithms and Data Structures (June 2003).

Application of Integral Geometry in the Boundary Element Method. University of Parma (May 1998), University of Texas at Austin (September 1998), University of Florence (April 1999) Purdue University (September 1997)

Electrostatics without singularities. AT&T Bell Laboratories (January 1996). New York University (January 1996). MPI Saarbrueken (August 1995).

Fast approximation of form factors. University of Warwick (October 1995), MPI Saarbrueken (August 1995), University of Minnesota (January 1995), New York University (January 1995).

Point location and motion planning among simplices. Polytechnic of Milano (December 1994), I.E.I-C.N.R. Pisa (December 1994), University of Padova (December 1994), University of Rome I, DIS (December 1994), University of Minnesota (May 1994).

Ray shooting and intersection of non convex polyhedra. ICSI Berkeley (June 1993) University of Rome "La Sapienza" (April 1992). University of L'Aquila (April 1992). I.E.I- C.N.R. Pisa (April 1992). New York University (February 1992). Stanford University (January 1991).

Finding Stabbing lines in 3-space. ICSI, Berkeley (October 1991), AT&T Bell Labs (March 1991).

VISITING POSITIONS

Charles University Prague, Check Rep.
Visiting Scientist (July 2001)

Max Plank Institute fuer Informatik Saarbrueken, Germany
Visiting Scientist (August 1995)(September 2000)

University of Texas at Austin Austin, TX
Visiting scientist (July 1999)

Purdue University West Lafayette, IN
Visiting Scientist, (September 1998)

Cornell University Ithaca, NY
Visiting lecturer (June-July 1997)

Duke University Durham, NC
Visiting Scientist (September 1996)

International Computer Science Institute

Berkeley, California

Senior Visiting Scientist (July-August 1993) (August-September 1997) (July-August 1998)

PUBLICATIONS

Editorial activities

1. **Marco Pellegrini**, Alberto Magi, Costas Iliopoulos (eds.) Repetitive Structures in Biological Sequences: Algorithms and Applications. Lausanne: Frontiers Media. doi: 10.3389/978-2-88945-018-3, 2016. ISBN: 9782889450183
2. **Marco Pellegrini**, Alberto Magi, Costas Iliopoulos. Repetitive structures in biological sequences: open challenges. *Front. Bioeng. Biotechnol.* 4:66, July 2016. doi: 10.3389/fbioe.2016.00066
3. Jaroslav Nesetril, **Marco Pellegrini** (eds). Selected papers of Eurocomb 2013 Special Issue of the European Journal of Combinatorics. Volume 48, August 2015, pp 1-234. Elsevier. ISSN 0195-6698.
4. Jiri Matousek, Jaroslav Nesetril, **Marco Pellegrini** (eds). Geometry, Structure and Randomness in Combinatorics Publications of the Scuola Normale Superiore / CRM Series vol 18. 2015. ISBN-13: 9788876425240
5. Jaroslav Nesetril, **Marco Pellegrini** (eds). The Seventh European Conference on Combinatorics, Graph Theory and Applications: EuroComb 2013 Publications of the Scuola Normale Superiore / CRM Series. 2013. ISBN-13: 978-8876424748.
6. **M. Pellegrini**, A. L. N. Fred, J. Filipe e H. Gamboa (eds). BIOINFORMATICS 2011 - Proceedings of the International Conference on Bioinformatics Models, Methods and Algorithms, Rome, Italy, 26-29 January, 2011 SciTePress 2011. ISBN 978-989-8425-36-2.
7. F. Geraci, R. Marangoni, **M. Pellegrini** e M. Elena Renda (eds). Proceedings of the 8th Annual Meeting of the Bioinformatics Italian Society, BITS 2011, Pisa, Italy. June 2011. ISBN 978-884673069-5.

Book Chapters

8. Francesco Russo, Kirstine Belling, Anders Boeck Jensen, Flavia Scoyni, Sren Brunak, **Marco Pellegrini** MicroRNAs, Regulatory Networks, and Comorbidities: Decoding Complex Systems In MicroRNA Detection and Target Identification: Methods and Protocols, 2017, Springer New York, ISBN 978-1-4939-6866-4

9. **M. Pellegrini.** Ray shooting and lines in space In Handbook of Discrete and Computational Geometry - third edition Csaba D. Toth, Jacob E. Goodman and Joseph O'Rourke (eds.). Chapman & Hall/CRC Press, Boca Raton, Florida. ISBN 9781498711395. 2017. Forthcoming.
10. Francesco Russo, Flavia Scoyni, Alessandro Fatica, **Marco Pellegrini**, Alfredo Ferro, Alfredo Pulvirenti and Rosalba Giugno. Circulating Non-Coding RNAs as Clinical Biomarkers In **Epigenetic Biomarkers and Diagnostics** , Elsevier, 2015, ISBN 9780128018996
11. **M. Pellegrini.** Ray-shooting and Lines in Space. In **The CRC Handbook of Discrete and Computational Geometry - second edition**, editori J. O'Rourke e J. Goodman. CRC Press, Boca Raton, Florida, pp. 839-856, 2004.
12. **M. Pellegrini.** Measuring Lines in Space - a Collection of Results In Homenatge al professor Llus Santal , Carles Barcelo i Vidal (ed). University of Girona, Girona, Spain, pp. 99-111, 2002.
13. **M. Pellegrini.** Ray-shooting and Lines in Space. In **The CRC Handbook of Discrete and Computational Geometry**, editori J. O'Rourke e J. Goodman. CRC Press, Boca Raton, Florida, pp. 599-614, 1997.

International Journals

14. Milena Rizzo, Gabriele Berti, Francesco Russo, Sofia Fazio, Monica Evangelista, Romina D'Aurizio, **Marco Pellegrini**, Giuseppe Rainaldi. Discovering the miR-26a-5p Targetome in Prostate Cancer Cells. *Journal of Cancer*. 2017; 8(14): 2729-2739. doi: 10.7150/jca.18396 (in print)
15. Lorenzo Bascetta, Arianna Oliviero, Romina D'Aurizio, Monica Evangelista, Alberto Mercatanti, **Marco Pellegrini**, Francesca Marrocolo, Sergio Bracarda, Milena Rizzo. The Prostate Cancer Cells Resistant to Docetaxel as in vitro Model for Discovering MicroRNAs Predictive of the Onset of Docetaxel Resistance. *Int. J. Mol. Sci.* 2017, 18(7), 1512; doi:10.3390/ijms18071512.
16. Marianna Vitiello, Andrea Tuccoli, Romina D'Aurizio, Samanta Sarti, Laura Giannecchini, Simone Lubrano, Andrea Marranci, Monica Evangelista, Silvia Peppicelli, Chiara Ippolito, Ivana Barravecchia, Elena Guzzolino, Valentina Montagnani, Michael Gowen, Elisa Mercoledì, Alberto Mercatanti, Laura Comelli, Salvatore Gurreri, Lawrence W Wu, Omotayo Ope, Keith Flaherty, Genevieve M Boland, Marc R Hammond, Lawrence Kwong, Mario Chiariello, Barbara Stecca, Gao Zhang, Alessandra Salvetti, Debora Angeloni, Letizia Pitto, Lido Calorini, Giovanna Chiorino, **Marco Pellegrini**, Meenhard Herlyn, Iman Osman, Laura Poliseno. Context-dependent miR-204 and miR-211 affect the biological properties of amelanotic and melanotic melanoma cells. *Oncotarget*, vol 8, issue 15, pages 2539525417, 2017. doi: 10.18632/oncotarget.15915

17. R. D'Aurizio, T. Pippucci, L. Tattini, B. Giusti, **M. Pellegrini**, A. Magi. Enhanced copy number variants detection from whole-exome sequencing data using EXCAVATOR2. *Nucleic Acids Research* , 2016. doi: 10.1093/nar/gkw695. Aug. 2016.
18. Romina D'Aurizio, Francesco Russo, Elena Chiavacci, Mario Baumgart, Marco Groth, Mara D'Onofrio, Ivan Arisi, Giuseppe Rainaldi, Letizia Pitto, **Marco Pellegrini**. Discovering miRNA regulatory networks in Holt-Oram Syndrome using a Zebrafish model *Front. Bioeng. Biotechnol*, 14 July 2016, 4:60. doi: 10.3389/fbioe.2016.00060
19. **M. Pellegrini**, M. Baglioni, F. Geraci. Protein complex prediction for large protein interaction networks with the Core&Peel Method. *BMC Bioinformatics* 17(S-12): 37-58 (2016). doi: <http://dx.doi.org/10.1101/053876>.
20. Monica Evangelista, Mariama El Baroudi, Milena Rizzo, Andrea Tuccoli, Laura Poliseno, **Marco Pellegrini**, Giuseppe Rainaldi Alkaline Phosphatase-Positive Immortal Mouse Embryo Fibroblasts Are Cells in a Transitional Reprogramming State Induced to Face Environmental Stresses. In *Genetics & epigenetics* . Vol 7. pages 33-45, 2015
21. Elena Chiavacci, Romina DAurizio, Elena Guzzolino, Francesco Russo, Mario Baumgart, Marco Groth, Laura Mariani, Mara DOnofrio, Ivan Arisi, **Marco Pellegrini**, Alessandro Cellerino, Federico Cremisi, Letizia Pitto MicroRNA 19a replacement partially rescues fin and cardiac defects in zebrafish model of Holt Oram syndrome. *Scientific Reports* 5, art. num 18240 (2015). doi:10.1038/srep18240
22. **M. Pellegrini**. Tandem Repeats in Proteins: Prediction Algorithms and Biological Role. *Front Bioeng Biotechnol*. 2015; 3: 143. doi: 10.3389/fbioe.2015.00143. Sept 2015.
23. M Schirripa, F Loupakis, C Cremolini, L Poliseno, L Salvatore, A Tuccoli, C Antoniotti, R D'Aurizio, F Marmorino, B Borelli, D Rossini, A Saettini, S Gini, R Moretto, I Rizzo, E Dell'Aquila, **M Pellegrini**, A Falcone P-198Circulating microRNAs in metastatic colorectal cancer (mCRC) patients treated with regorafenib. *Annals of Oncology* 26, suppl 4, pages iv57, June 2015
24. M. Baglioni, F. Russo, F. Geraci, M. Rizzo, G. Rainaldi and **M. Pellegrini**. A new method for finding disease-specific miRNA-target regulatory networks. *Plos One*. 10(4): e0122473. doi:10.1371/journal.pone.0122473 April 2015.
25. Andrea Marranci, Andrea Tuccoli, Marianna Vitiello, Elisa Mercoledì, Samanta Sarti, Simine Lubrano, Monica Evangelista, Antonella Fogli, Camilo Valdes, Francesco Russo, Massimo Dal Monte, Maria Adelaide Caligo, **Marco Pellegrini** , Enrico Capobianco, Nicholas Tsinoremas and Laura Poliseno. Identification of BRAF 3UTR isoforms in melanoma. *Journal of Investigative Dermatology*. 2015 Jun;135(6):1694-7. doi: 10.1038/jid.2015.47
26. M. Leoncini, M. Montangero, **M. Pellegrini**, K. P. Tillan. CMStalker: a combinatorial tool for composite motif discovery. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*. *IEEE/ACM Transactions on Computational Biology and Bioinformatics* Epub Nov 2014. doi: 10.1109/TCBB.2014.2359444

27. Francesco Russo, Sebastiano Di Bella, Vincenzo Bonnici, Alessandro Laganà, Giuseppe Rainaldi, **Marco Pellegrini**, Alfredo Pulvirenti, Rosalba Giugno, Alfredo Ferro. A knowledge base for the discovery of function, diagnostic potential and drug effects on cellular and extracellular miRNAs. *BMC Genomics* 15(Suppl 3), S4, 2014.
28. M. Baglioni, F. Geraci, **M. Pellegrini**, E. Lastres. Fast exact and approximate computation of betweenness centrality in social networks State of the Art Applications of Social Network Analysis. In the series Lecture Notes in Social Networks 2014, pages 53-73, Springer International Publishing.
29. Filippo Geraci, Maurizio Martinelli, **Marco Pellegrini**, Michela Serrecchia. A framework to evaluate information quality in Public Administration websites. *Pacific Asia Journal of the Association for Information Systems*. Vol. 5: Iss. 3, Article 3, 2013.
30. **M. Pellegrini**, M. Elena Renda and A. Vecchio. Tandem Repeats Discovery Service (TReaDS) applied to finding novel Cis-acting factors in Repeat Expansion Diseases. *BMC Bioinformatics* 2012, Vol. 13(Suppl 4):S3, doi:10.1186/1471-2105-13-S4-S3. March 2012.
31. **M. Pellegrini**, M. Elena Renda and A. Vecchio. Ab Initio Detection of Fuzzy Amino Acid Tandem Repeats in Protein Sequences. *BMC Bioinformatics* 2012, Vol. 13(Suppl 3):S8, doi:10.1186/1471-2105-13-S3-S8. March 2012
32. **M. Pellegrini**, M. Elena Renda and A. Vecchio. TRStalker: an Efficient Heuristic for Finding Fuzzy Tandem Repeats *Bioinformatics* 26(12), pp. i358-366, 2010.
33. M. Furini, F. Geraci, M. Montangero e **M. Pellegrini**, STIMO: STill and MOving Video Storyboard for the Web Scenario, *Multimedia Tools and Applications*. Springer Verlag, New York, NY. On-line preprint, Giugno 2009. DOI 10.1007/s11042-009-0307-7.
34. Y. Dourisboure, F. Geraci e **M. Pellegrini**, Extraction and classification of dense communities in the Web, *ACM Transactions on the WEB*, 3(2), Aprile 2009. Article 7, DOI <http://doi.acm.org/10.1145/1513876.1513879>, Association for Computing Machinery, New York, NY.
35. F. Geraci, M. Leoncini, M. Montangero, **M. Pellegrini** e M. Elena Renda, *K-Boost: a Scalable Algorithm for High-Quality Clustering of Microarray Gene Expression Data*, *Journal of Computational Biology* 16(6), pp. 859-873, Giugno 2009. Mary Ann Liebert Inc. New Rochelle, NY.
36. L. M. Genovese, F. Geraci e **M. Pellegrini**. SpeedHap: An Accurate Heuristic for the Single Individual SNP Haplotyping Problem with Many Gaps, High Reading Error Rate and Low Coverage *IEEE/ACM Transactions on Computational Biology and Bioinformatics* 30 June 2008. IEEE Computer Society Digital Library. IEEE Computer Society. DOI: <http://doi.ieeeecomputersociety.org/10.1109/TCBB.2008.67>
37. F. Geraci, **M. Pellegrini**, E. Renda. AMIC@: All Microarray Clusterings @ once. *Nucleic Acids Research* , Accepted for publication in the Web Server issue, 2008.

Nucleic Acids Research Advance Access published online May 13, 2008. Vol. 36, Web Server Issue W315W319 doi:10.1093/nar/gkn265.

38. F. Geraci, **M. Pellegrini**, F. Sebastiani and M. Maggini. Cluster Generation and Cluster Labelling for Web Snippets: A Fast and Accurate Hierarchical Solution. *Internet Mathematics*, 3(4) pp. 413-444, 2007. In print.
39. **M. Pellegrini** and G. Fusco. Efficient IP Table Lookup via Adaptive Stratified Trees with Selective Reconstructions. *The ACM Journal of Experimental Algorithmics*. Vol 12, Num 1.4, 2007. ISSN: 1084-6654.
40. G. De Marco, **M. Pellegrini** and G. Sburlati. Faster Deterministic Wakeup in Multiple Access Channels. ***Discrete Applied Mathematics***, 155(8), pp. 898-903, 2007.
41. L. Galluccio, G. Morabito, S. Palazzo, **M. Pellegrini**, M. E. Renda and P. Santi. GEORoy: A Location-Aware Enhancement to Viceroy Peer-to-Peer Algorithm. ***Computer Networks***, 51(8), pp. 1998-2014, 2007.
42. D. Finocchiaro and **M. Pellegrini**. On computing the diameter of a point set in high dimensional Euclidean space. ***Theoretical Computer Science***, 287(2), pp. 501-514, 2002.
43. M. Pellegrini. Electrostatic Fields without Singularities: Theory, Algorithms and Error Analysis. ***Journal of the ACM***, 45(6), pp.924-964, 1998.
44. D. Finocchiaro, **M. Pellegrini** e P. Bientinesi. On Numerical Approximation of Electrostatic Energy in 3D. ***Journal of Computational Physics*** 146, pp. 707-725, 1998.
45. **M. Pellegrini**. Monte Carlo Approximation of Form Factors with Error Bounded a Priori. ***Discrete & Computational Geometry***, 17 (3), pp. 319-338, 1997.
46. **M. Pellegrini**. On Counting Pairs of Intersecting Segments and Off-line Triangle Range Searching. ***Algorithmica***, 17 (4), pp. 380-398, 1997.
47. **M. Pellegrini**. On Point Location and Motion Planning in Arrangements of Simplices. ***SIAM J. on Computing*** 25(5), pp. 1061-1081, 1996
48. **M. Pellegrini**. Repetitive Hidden Surface Removal for Polyhedra. ***Journal of Algorithms*** 21, pp. 80-101, 1996.
49. **M. Pellegrini**. On Lines Missing Polyhedral Sets in 3-space. ***Discrete & Computational Geometry*** 12, pp. 203-221, 1994.
50. **M. Pellegrini**. On Collision-Free Placements of Simplices and the Closest Pair of Lines in 3-Space. ***SIAM J. on Computing***, 23 (1), 1994.
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SOFTWARE AND WEB-BASED SERVICES

Core&Peel. Protein Complex Prediction in Large protein Interaction Networks. <http://bioalgo.iit.cnr.it/index.php?pg=ppin>

AST. A data structure for IP Table lookups. <http://psp1.iit.cnr.it/~mcsoft/ast/ast.html>

G-filter. A data structure for Internet packet filtering.

<http://psp1.iit.cnr.it/~mcsoft/g-filter/g-filter.html>

AMIC@. A tool for multi-clustering of micorarray gene expression data.

<http://bioalgo.iit.cnr.it/amica>.

TReaDS. A tool for meta-searching tandem Repeats in Biological sequences.

<http://bioalgo.iit.cnr.it:8080/TRSearch/index.html>

ReHap. A Web application with a common interface over 5 algorithms for haplotype reconstruction from shotgun sequencing fragments data.

<http://bioalgo.iit.cnr.it/rehap>

Armil. A Tool for meta-searching, clustering and labelling web snippets from Yahoo and Google. <http://armil.iit.cnr.it/>

VISTO. A demonstrative tool for producing on-line static storyboards of short videos. <http://visto.iit.cnr.it/>

Community Watch. A demonstrative tool for analyzing dense components of the Web Graph. <http://comwatch.iit.cnr.it/>

CGTutorial. An on-line java-based demo of several geometric algorithms in 2D and 3D for didactic purposes (Maintained by Massimo Bartoletti) <http://cgtutorial.sourceforge.net/>.

Place and date: Pisa, 30/8/2017

Signature: Marco Pellegrini