

CURRICULUM VITAE

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POSIZIONE ACCADEMICHE

da giu. 2019 **Professore associato**, Università di Verona, Italia.

nov. 2011 - mag. 2019 **Ricercatore universitario**, Università di Verona, Italia.

ago. – ott. 2011 **Marie Curie IEF fellow**, Università di Salerno, Italia, con una Marie Curie IEF individual fellowship (24 mesi, interrotto per presa di servizio a Verona).

lug – ago. 2010 & ago – nov 2009 **Visiting researcher**, EU-FP6-ToK project HUBI (*Hungarian Bioinformatics*), A. Rényi Institute of Mathematics, Hungarian Academy of Sciences, Budapest, Hungary (6 mesi).

lug 2005 – ago 2009 **Wissenschaftliche Mitarbeiterin**, AG Genominformatik, Technische Fakultät, Universität Bielefeld, Germania.
congedo per maternità: sett. 2006 – sett. 2007

apr 2003 – lug 2005 **Wissenschaftliche Mitarbeiterin e PhD student**, AG Genominformatik, Technische Fakultät, Universität Bielefeld, Germania.
congedo per maternità: nov. 2004 – ott. 2005

mag – ago 2002 & feb. 2003 **Visiting researcher**, South African National Bioinformatics Institute (SANBI), University of the Western Cape, Cape Town, e School of Computer Science, University of the Witwatersrand, Johannesburg, Sudafrica (4 mesi).

giu 1999 – mar 2003 **Research assistant e PhD student**, Institute of Theoretical Comp. Science, ETH Zurich (Swiss Federal Institute of Technology), Svizzera.

FORMAZIONE

lug 2005 **PhD degree** (voto: 1 mit Auszeichnung¹) in Informatica, Universität Bielefeld, Germania; tesi: *Strings in Proteomics and Transcriptomics: Algorithmic and Combinatorial Questions in Mass Spectrometry and EST Clustering*. Relatore: Sebastian Böcker.

mag 1999 **Diplom** (German Masters degree equivalent) in matematica (major) e linguistica (minor), Freie Universität Berlin, Germania (voto 1); tesi: *On Algebraic Characterizations of Regular Term Languages*. Relatore: Dieter Hofbauer / Dirk Siefkes.

PREMI INTERNAZIONALI

ago 2011 **Marie Curie IEF (Intra-European Fellowship for career development) within the 7th Framework Programme of the European Union**, periodo di 24 mesi, Università di Salerno, Italia (Euro 244,000).

¹ voto più alto, con distinzione

RESPONSIBILITÀ SCIENTIFICHE**a. Program Committee Chair di conferenze internazionali:**

- 31st International Symposium on String Processing and Information Retrieval (SPIRE 2024), Sept. 23-25, 2024, Puerto Vallarta, Mexico (with Edleno Silva de Moura).
- 34th Annual Symposium on Combinatorial Pattern Matching (CPM 2023), June 26-28, 2023, Marne-la-Vallée, Francia (con Laurent Bulteau)
- 26th International Workshop on Combinatorial Algorithms (IWOCA 2015), 5-7 Oct. 2015, Verona, Italia (con Bill Smyth).

b. Membro del Steering Committee (SC) di conferenze internazionali:

- International Symposium on String Processing and Information Retrieval (SPIRE), since 2024

c. Membro del Comitato di Programma (PC) di conferenze internazionali:

- 17th Latin American Theoretical Informatics Symposium (LATIN 2026), April 13-17, 2026, Florianópolis, Brazil
- 32nd International Symposium on String Processing and Information Retrieval (SPIRE 2025), Sept. 8-11, London, UK
- SIAM Conference on Applied and Computational Discrete Algorithms (ACDA25), July 30-Aug. 1, 2025, Montréal, Quebec, Canada
- 21st Symposium on Computability in Europe (CiE 2025), July 14-18, 2025, Lisbon, Portugal
- 32nd Annual European Symposium on Algorithms (ESA 2024), Track B, Sept. 2-4, 2024, Royal Holloway, UK
- 28th International Conference on Developments in Language Theory (DLT 2024), 12-16 Aug. 2024, Göttingen, Germany
- 30th International Symposium on String Processing and Information Retrieval (SPIRE 2023), Sept. 26-28, 2023, Pisa, Italy
- 24th Italian Conference on Theoretical Computer Science (ICTCS 2023), September 13-15, 2023, Palermo, Italy
- 29th International Symposium on String Processing and Information Retrieval (SPIRE 2022), Nov. 8-10, 2022, Concepción, Chile
- 23rd Italian Conference on Theoretical Computer Science (ICTCS 2022), September 7-9, 2022, Rome, Italy
- 23rd International Symposium on Fundamentals of Computation Theory (FCT 2021), Sept. 12-15, 2021, Athens, Greece
- 28th International Symposium on String Processing and Information Retrieval (SPIRE 2021), Oct. 4-6, 2021, Lille, France
- 32nd International Workshop on Combinatorial Algorithms (IWOCA 2021), July 5-7, 2021, Ottawa, Canada
- 47th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2021), Bolzano, Italy, Jan. 25-18, 2021
- 27th International Symp. on String Processing and Information Retrieval (SPIRE 2020), Orlando, FL, USA, 13-15 Oct. 2020
- 21st Italian Conf. on Theoretical Computer Science (ICTCS 2020), Ischia, Italy, Sept. 14-16, 2020
- 31st Annual Symposium on Combinatorial Pattern Matching (CPM 2020), Copenhagen, Denmark, June 17-19, 2020
- 46th International Conference on Current Trends in Theory & Practice of Computer Science (SOFSEM 2020), Limassol, Cyprus, Jan. 20-24, 2020

- 26th Int. Symposium on String Processing and Information Retrieval (SPIRE 2019), Segovia, Spain, Oct. 7-9, 2019
- 19th Workshop on Algorithms in Bioinformatics (WABI 2019), Niagara Falls, NY, USA, Sept. 8-10, 2019
- 18th Workshop on Algorithms in Bioinformatics (WABI 2018), Helsinki, Finland, Aug. 20-24, 2018
- 29th International Workshop on Combinatorial Algorithms (IWOCA 2018), July 16-19, 2018, Singapore
- 17th Workshop on Algorithms in Bioinformatics (WABI 2017), Boston, MA, USA, Aug. 21-23, 2017
- 24th International Symposium on String Processing and Information Retrieval (SPIRE 2017), Sep 26-29, 2017, Palermo, Italy
- 28th International Workshop on Combinatorial Algorithms (IWOCA 2017), July 17-21, 2017, Newcastle, Australia
- 16th Workshop on Algorithms in Bioinformatics (WABI 2016), Aarhus, Denmark, Aug. 22-24, 2016)
- 27th Annual Symposium on Combinatorial Pattern Matching (CPM 2016), June 27-29, 2016, Tel Aviv, Israel
- 27th International Workshop on Combinatorial Algorithms (IWOCA 2016), Aug. 17-19, 2016, Helsinki, Finland
- 22nd International Symposium on String Processing and Information Retrieval (SPIRE 2015), Aug 31-Sep 4, 2015, London, UK
- 14th Workshop on Algorithms in Bioinformatics, Wroclaw, Poland, Sept. 8-10, 2014 (WABI 2014)
- 25th International Workshop on Combinatorial Algorithms, Duluth, MN, USA, Oct. 15-17, 2014 (IWOCA 2014)
- 13th Workshop on Algorithms in Bioinformatics, Sophia Antipolis, France, Sept. 2-4, 2013 (WABI 2013)
- 24th International Workshop on Combinatorial Algorithms, Rouen, France, July 10-12, 2013 (IWOCA 2013)

d. Membro del Comitato Organizzatore (OC) di conferenze internazionali:

- Organizer of **StringMasters 2024**, International Workshop on Open Problems on Strings, June 16 and 20, 2025, Milano, Italy (with Golnaz Badkobeh and Dominik Köppl).
- 31st International Symposium on String Processing and Information Retrieval (SPIRE 2024), Sept. 23-25, 2024, Puerto Vallarta, Mexico: **membro del OC**
- 26th International Workshop on Combinatorial Algorithms, 5-7 Oct. 2015, Verona, Italy (IWOCA 2015): **OC chair**
- 26th Annual Symposium on Combinatorial Pattern Matching, 28 June-1 July 2015, Ischia Island, Italy (CPM 2015): **membro del OC**
- **Organizzatore** del 11th **StringMasters** (insieme a Giuditta Franco), una serie di workshop internazionali su algoritmi su stringhe, Università di Verona, febb. 20-23, 2013 (27 partecipanti da 11 paesi), <http://stringmasters.di.univr.it>
- **Co-chair del Problems Section** for the International Workshop on Combinatorial Algorithms (IWOCA): collection and maintenance of open problems, organisation of Open Problems Session at the conferences, maintenance of webpages (Jan. 2011 - 2015).

d. Attività di revisore

- **Referee** for the international journals (in alphabetical order): Algorithmica, Algorithms, Bioinformatics, The Computer Journal, Chemometrics and Intelligent Laboratory Systems, Discrete Applied Mathematics, IEEE/ACM Transactions on Bioinformatics and Computational Biology, Information Processing Letters, Information Retrieval Journal, Journal of Combinatorial Optimization, Journal of Computer and System Sciences, Journal of Discrete Algorithms, Journal of Experimental Algorithmics, Mathematical Structures in Computer Science, Mathematics of Operations Research, RAIRO ITA (Theoretical Informatics and Applications), Theoretical Computer Science, Theory of Computing Systems.
- **Revisore** per le conferenze internazionali WG 2000-2002, CIAC 2000, MFCS 2001, WADS 2001, SIROCCO 2002, TCS 2002, FOCS 2002, RECOMB 2004, STACS 2004, WABI 2004, CompLife 2006, RECOMB2006, LATIN 2007, WADS 2009, CPM 2010, BICoB 2011, CPM 2011, SPIRE 2012, ICCABS 2012, SODA 2013, BICoB 2013, WADS 2013, IWOCA 2013, WABI 2013, ESA 2013, ICCABS 2014, SEA 2014, WABI 2014, IWOCA 2014, IWOCA 2015, RECOMB-CG 2015, WADS 2015, SPIRE 2015, IWOCA 2016, CPM 2016, WABI 2016, IWOCA 2017, SPIRE 2017, WABI 2017, RECOMB 2018, IWOCA 2018, WABI 2018, WABI 2019, SPIRE 2019, WORDS 2019, SOFSEM 2020, ICTCS 2020, SPIRE 2020, CPM 2020, MFCS 2020, LATA 2020, SPIRE 2021, FCT 2021, IWOCA 2021, SOFSEM 2021, CPM 2021, DLT 2021, WADS 2021, ICTCS 2022, SPIRE 2022, ICTCS 2023, SPIRE 2023, MFCS 2024, DLT 2024, ESA2024-Track B, SPIRE 2024, DCFS 2025, SIAM-ACDA 2025, CiE 2025, DLT 2025, SPIRE 2025.
- **Revisore** per: Israel Science Foundation (ISF), 2018; the Italian Ministry for Education, University, and Research (MIUR), 2012; the National Research Foundation (NRF) of South Africa, 2009; tenure review for a US university, 2021.

e. Altre responsabilità scientifiche

- Componente della **Commissione di selezione finale** per "Borse di studio - Corsi di laurea magistrale per tutte le discipline" di Deutscher Akademischer Austauschdienst (**DAAD**), 05/2025.
- Componente del **CPM Test-of-Time Award Committee** (Annual Symposium on Combinatorial Pattern Matching), 2024.
- **External reviewer** and member of **defense committee** for Thomas Büchler, Ulm University, Germany (defense on 10 Feb. 2024).
- Componente della **Commissione di valutazione** di un posto di ricercatore a tempo determinato (RTd-A), Università di Bergamo, ott. 2023.
- Componente del **Comitato EATCS Italian Chapter** per la Selezione della Miglior Tesi di Dottorato in Informatica Teorica, 2021.
- Componente della **Commissione di selezione assegni di tutorato**, Dip. di Informatica, Università di Verona (dal nov. 2015).
- **Referente per l'Internazionalizzazione del Collegio Didattico di Informatica** (2019-2022).
- Componente della **Commissione Pratiche Studenti del Collegio Didattico di Informatica** (da 01/2019).
- Componente del **Collegio Didattico di Dottorato in Informatica**, Univ. di Verona.
- Membro della **Commissione di selezione per il programma Erasmus** dell'Area di Scienze e Ingegneria, Università di Verona (2014-2022).
- Stipulato degli **accordi Erasmus** (dal 2012) tra l'Università di Verona e Bielefeld University (Germania), Eötvös Loránd University, Budapest (Ungheria), King's College, London (UK), University of Primorska, Koper (Slovenia), Univ. of Jena (Germania), Univ. of Dortmund (Germania), Univ. di Helsinki: **coordinatore scientifico**.
- Membro della **PhD Thesis Advisory Committee** (3rd supervisor) di Ana Stolnicu, International Graduate School in Molecular Medicine Ulm, Germania (2020-2023).

- Membro delle **Commissioni di Dottorato** di Mauro Zucchelli (2013-2016), Massimiliano Rossi (2016-2019), Sara Giuliani (2019-2022), Davide Cenzato (2019-2022), Andrea Caucchiolo (2020-2022), Francesco Masillo (2021-2024), Università di Verona.
- Membro della **Commissioni di Dottorato** di Constantin Bannert, Bielefeld University (defense 03/2009).
- Membro del **Center for Biomedical Computing** (CBMC), Verona, dal 2012.
- Membro del **Centre for Combinatorics on Words & Applications** (CCWA) at Murdoch University, Perth, Australia (dal Nov. 2014)
- Membro del **Committee for Equal Opportunities** for Women and Men at ETH Zurich, as assistant representative (Febr 2001–Mar 2002). Wrote new chapter “Equal Opportunities for Women and Men” of the “Survival Guide for PhD Students at ETH Zurich”.
- **Co-head of Forum for Women in Computer Science at ETH Zurich**, a body that aims at increasing the number of female students at the Department of Computer Science. We won two out of four prizes awarded by the Swiss Ministries of Communication and Culture for efficiently and successfully bridging the IT-gap (Nov. 2001). My responsibilities included organizing one-week intensive courses for female high school students, press work, lobbying, fundraising, introducing mentoring programs and other events, leading a team, presentation at international conferences, etc. (winter 1999–Mar 2003).

DIDATTICA

a. Corsi, seminari, block courses

- a.a. 2022/23 – 2024/25 **Corso Modelli Biologici Discreti**, L Bioinformatica (32h di 56h).
- a.a. 2022/23 – 2024/25 **Corso Fundamental Algorithms in Bioinformatics** (84h):
modulo 1: Algorithm Design (6h di 42h), modulo 2: Bioinformatics Algorithms/Algorithms in Computational Biology (42h), LM *Medical Bioinformatics* (LM-18) e LM *Molecular and Medical Biotechnology* (LM-9)
- 01/2023, 09/2024 **Corso di dottorato Advanced data structures for textual data**, Univ. di Verona (12 ore).
- a.a. 2021/22 **Corso Fundamental Algorithms in Bioinformatics** (84h):
modulo 1: Algorithm Design (42h), modulo 2: Bioinformatics Algorithms/Algorithms in Computational Biology (42h), LM *Medical Bioinformatics* (LM-18) e LM *Molecular and Medical Biotechnology* (LM-9)
- a.a. 2021/22 – 2024/25 **Corso Computational analysis of genome-scale sequences**, LM *Medical Bioinformatics* (LM-18) (42 h).
- a.a. 2020/21 **Corso Fundamental Algorithms in Bioinformatics** (72h di 96h totali):
modulo 1: Algorithm Design (24h di 48h), modulo 2: Bioinformatics Algorithms/Algorithms in Computational Biology (48h), LM *Medical Bioinformatics* (LM-18) and LM *Molecular and Medical Biotechnology* (LM-9)
- sett. 2020 **Corso di dottorato Advanced data structures for textual data**, Univ. di Verona (20 ore).
- a.a. 2016/17 II. sem. **Computational analysis of genomic sequences**, LM *Medical Bioinformatics* (LM-18), Università di Verona. Fundamental algorithms and
a.a. 2017/18, 2018/19, data structures for strings and sequences: pattern matching algorithms,
2019/20, 2020/21 I. sem. suffix trees, suffix arrays, enhanced suffix arrays, Burrows-Wheeler Transform, applications in bioinformatics (48 ore).
- a.a. 2016/17, 2017/18, **Bioinformatics Algorithms** (modulo 2 di *Fundamental Algorithms for*

- 2018/19, 2019/20, II. sem. *Bioinformatics*), *LM Medical Bioinformatics (LM-18)*, Università di Verona. Fundamentals of sequencing algorithms (SCS and variants, SBH, de Bruijn graphs, algorithms for NGS data); advanced topics in sequence comparison (similarity vs. distance, variants of pairwise alignment, scoring matrices, multiple seq. alignment: DP, approximations, heuristics; RNA folding); advanced topics (48 ore).
- marzo 2016 **Corso di dottorato *Computational methods for handling textual data*** (con F. Cicalese e G. Franco), Univ. di Verona (8 ore di 20 ore totali).
- a.a. 2015/16 I. sem. ***Algorithms in Computational Biology***, *LM Molecular and Medical Biotechnology (LM-9)*, Università di Verona. Introduction to sequence comparison (pairwise sequence alignment, string distance measures, multiple sequence alignment, heuristics); algorithm analysis; scoring matrices; basics of phylogenetics (perfect phylogeny, small parsimony, large parsimony, distance based methods) (48 ore) – **in più presentazioni degli studenti**
- a.a. 2014/15 I. sem. ***Modelli Biologici Discreti***, *Laurea in Bioinformatica*, Università di Verona. Introduzione alla combinatorica, NP-completezza, modelli discreti in biologia: assemblaggio di sequenze, grafi overlap, SCS e altri modelli, grafi de Bruijn per SBH e per NGS sequencing, sequenze de Bruijn, modelli per la ricostruzione filogenetica (48 ore)
- a.a. 2011/12, 2012/13, 2013/14, 2014/15 ***Algorithms in Bioinformatics***, *LM Bioinformatica e Biotechnologie Mediche (LM-9)*, Università di Verona. Introduction to sequence comparison (pairwise sequence alignment, multiple sequence alignment, heuristics); algorithm analysis; scoring matrices; basics of phylogenetics (perfect phylogeny, small parsimony, large parsimony, distance based methods), basic statistics (48 hrs) – **in più presentazioni degli studenti**
- a.a. 2008/09 I. sem. ***Selected Topics in Algorithmic Bioinformatics***, for bioinformatics and computer science bachelor/masters and PhD students, Universität Bielefeld. Introduction to phylogenetics (distance based methods, perfect phylogeny, small parsimony, large parsimony); NP completeness; Probabilistic models (Markov chains, HMMs); Money Changing Problem (30 hrs)
- a.a. 2007/08 I. sem. ***Advanced Algorithmic Techniques for Bioinformatics*** (con Ferdinando Cicalese, 50-50%), for bioinformatics and computer science bachelor/masters and PhD students, Universität Bielefeld. Introduction to phylogenetics (distance based methods, perfect phylogeny, small parsimony, large parsimony); NP completeness; Probabilistic models (Markov chains, HMMs); Money Changing Problem (48 hrs, incl. exercises) .
- a.a. 2005/06 I. sem. ***Algorithms for Mass Spectrometry***, for bioinformatics and computer science bachelor/masters students, Universität Bielefeld. Biotechnology of MS; de novo peptide sequencing with DP; combinatorics of weighed strings; MASCOT and SEQUEST; mass spectra alignment; MS stochastics; DNA mass spectrometry (30 hours).
- a.a. 2003/04 II. sem. ***Analysis of Algorithms*** (con Hans-Michael Kaltenbach, 50-50%), for computer science bachelor/masters students and PhD students, Universität Bielefeld. Asymptotic notation, worst-case vs. average-case, recurrences, generating functions, dynamic programming, amortized analysis, union-find, graph algorithms, online algorithms (30 hrs).
- a.a. 2003/04 II. sem. **Reading seminar *Algorithms for Mass Spectrometry (Genomics and Proteomics)***, for bioinformatics bachelor/masters, Univ. Bielefeld. We read and presented current papers on MS data interpretation (30 hrs).
- marzo 2004 **Two modules** within the block course *Advanced courses in Bioinformatics*, Universität Greifswald, Germany; for bachelor/masters bioinformatics students: ***Exact and approximate pattern matching*** and ***Introduction to suffix trees***. (1 day each)

- feb. – mar 2003 **2 one-week intensive courses *Introduction to Algorithms for Biologists* and *Introduction to Programming with Perl***, for bioinformatics masters students at the South African Bioinformatics Institute (SANBI), Cape Town, South Africa (5 days each).
- lug. 2002 **One-week intensive course *Introduction to Algorithms for Biologists*** for bioinformatics masters students at the South African Bioinformatics Institute (SANBI), Cape Town, South Africa (5 days).
- autunno 1999–mar 2003 Organizzazione e didattica/presentazioni durante dei **corsi di introduzione di informatica** per alunne delle scuole superiori, ETH Zurich.

b. Teaching assistance (tutoraggio)

- 2001 – 2005 **Teaching Assistant (T.A.)** per i corsi *Algorithms for MS*, *Informatics I and II*, Uni. Bielefeld e ETH Zürich.
- 1995 – 1998 **Student T.A. per 8 corsi** in matematica e informatica teorica, per i seguenti corsi: *calculus*, *linear algebra*, *logic*, *set theory*, *discrete mathematics*, *design and analysis of algorithms*, Freie Universität Berlin. (2 x 2 hours teaching per week, plus marking of exercises). Inoltre, tre "Ferientutorien" di una settimana ognuna: *Mathematics for physicists*, *Linear algebra*, e *Logic and computability*.

SEMINARI SCELTI

a. Keynote

- Title tba*, **keynote talk** at the First Workshop on Combinatorics and the Life Sciences, Lyon, France, Sept. 29-Oct. 2, 2025. (scheduled)
- How to use the Burrows-Wheeler Transform to construct random de Bruijn sequences*, **keynote talk** at the 18th SeqBIM (Annual Meeting of the working group Séquences en Bioinformatique, Informatique et Mathématiques), Rennes, 29/11/2024.
- BWT everywhere*, **keynote talk** at the 35th Annual Symposium on Combinatorial Pattern Matching (CPM 2024), Fukuoka, Japan, 26/6/2024.
- Dollar or no dollar, that is the question (New combinatorial results on the Burrows-Wheeler Transform)*, **keynote talk** at the international conference 18th Mons Days on Theoretical Informatics (Journées Montoises), Prague, Czech Republic, 9/9/2022.

b. Presentazioni scientifiche a conferenze e workshop internazionali

- Generating random de Bruijn sequences*. Workshop "Sequences in London (2025)", London, UK, 6/2/2025.
- On the combinatorics of the BWT of string collections*. Workshop "Sequences in London", London, UK, 11/5/2023.
- On the Parikh-de-Bruijn grid*. Workshop on Words & Complexity, Villeurbanne (Lyon), France, 21/3/2018.
- Reconstruction of Trees from Jumbled and Weighted Subtrees*. 27th Annual Symposium on Combinatorial Pattern Matching (CPM 2016), Tel Aviv, Israel, 27/6/2016.
- Reconstruction of Trees from Jumbled and Weighted Subtrees*. AxA Workshop in memoriam Alberto Apostolico (Workshop on Advanced Algorithms on Strings), Venice, Italy, 23/6/2016.
- More on Prefix Normal Words*. London Stringology Days/London Algorithmic Workshop (LSD/LAW 2015), King's College London, UK, 5/2/2015.
- Normal, Abby Normal, Prefix Normal*. Seventh International Conference on Fun with Algorithms (FUN 2014), Lipari Island, Italy, 1/7/2014.
- Prefix Normal Words, Binary Jumbled Pattern Matching, and Bubble Languages*. London Stringology Days/London Algorithmic Workshop (LSD/LAW 2014), King's College London, UK, 7/2/2014.

Jumbled String Matching: Motivations, Variants, Algorithms. Workshop “Combinatorial structures for sequence analysis in bioinformatics”, Dip. di Informatica, Sistemistica e Comunicazione, University of Milano-Bicocca, Italy, 27/11/2013.

Some Problems and Algorithms in Non-Standard String Matching. Workshop “Search Methodologies III”, Center for Interdisciplinary Research (ZIF), Bielefeld, Germany, 6/9/2012.

KABOOM! A new suffix-array based algorithm for clustering expression data. SPIRE 2011 Workshop on the Algorithmic Analysis of Biological Data (WAABD 2011), Pisa, Italy, 21/10/2011.

Efficient Reconstruction of RC-Equivalent Strings. 21st International Workshop on Combinatorial Algorithms (IWOCA 2010), London (UK), 28/7/2010.

On Table Arrangements, Scrabble Freaks, and Jumbled Pattern Matching. Fifth International Conference on Fun with Algorithms (FUN 2010), Ischia (Italy), 4/6/2010.

Searching for Jumbled Patterns in Strings. Prague Stringology Conference (PSC 2009), Prague, Czech Republic, 1/9/2009.

Searching for Submasses in Weighted Strings. Workshop on Combinatorial Search, Budapest, Hungary, April 23, 2005.

Efficient Algorithms for Finding Submasses in Weighted Strings. Fifteenth Annual Combinatorial Pattern Matching Symposium (CPM 2004), Istanbul, Turkey, July 4, 2004.

A Sublinear Algorithm for Protein Identification (short talk), Second Int. Workshop on Algorithms in Bioinformatics (WABI), Rome, Italy, Sept 18-21, 2002.

Algorithmic Complexity of Protein Identification: Combinatorics of Weighted Strings. Workshop on Combinatorics of Searching, Sorting, and Coding (COSSAC), Ischia, Italy, Sept. 7-9, 2001.

Broadcasting in Complete Networks with Dynamic Edge Faults. 4th International Conference on Principles of Distributed Systems (OPODIS 2000), Paris, France, Dec. 20-22, 2000.

Broadcasting in Complete Networks with Dynamic Edge Faults. Upper Rhine Regional Algorithms Workshop (URAW), Freiburg, Germany, Febr. 25-26, 2000.

c. Presentazioni scientifiche su invito presso centri di ricerca e università

How to use the BWT to construct random de Bruijn sequences. Fakultät für Ingenieurwissenschaften, Informatik und Psychologie, Universität Ulm, Germany, 11/2/2025.

A BWT-based algorithm for construction of random de Bruijn sequences. Talk given at the Department of Computer Science (DCC), University of Chile, Santiago, 27/3/2024.

On the Burrows-Wheeler Transform of string collections. Primavera dell'Informatica Teorica, **invited talk** in the series of the Italian Chapter of the EATCS (online and recorded), 11/1/2024.

Dollar or no dollar, that is the question (New combinatorial results on the Burrows-Wheeler Transform). Pontificia Universidad Católica de Chile (PUC Chile), Santiago, Chile, 4/11/2022.

Jumbled Pattern Matching: Online, offline, binary, or not. McMaster University, Hamilton, ON, Canada, 10/10/2014.

Algorithms on strings and other discrete problems in bioinformatics. Center for BioMedical Computing (CBMC), Verona, Italy, 30/10/2013.

Recent Advances on Prefix Normal Words. Dept. of Mathematics and Computer Science of the University of Palermo, Italy, 24/10/2013.

Non-Standard String Matching: Some Problems and Algorithms. Université Nice Sophia-Antipolis, Nice, France, 25/4/2012.

On molecules, strings, and coins: Some applications of string combinatorics in computational biology. Dept. of Computer Science, University of Verona, Italy, 15/3/2011.

Efficient Reconstruction of RC-Equivalent Strings. Alfréd Rényi Institute of Mathematics, Budapest, Hungary, 23/7/2010.

Faster Searching for Jumbled Patterns in Strings (in Hungarian), Eötvös Loránd University, Dept. of Algorithms and Their Applications, Budapest, Hungary, 14/10/2009.

Searching for Jumbled Patterns in Strings, Alfréd Rényi Institute of Mathematics, Budapest, Hungary, 22/9/2009.

Decomposition Algorithms in Mass Spec Data Interpretation, Stazione Zoologica Anton Dohrn (SZN), Napoli, Italy, 25/9/2008.

Combinatorics and Algorithmics in Mass Spec Data Interpretation. BioGem IRGS (Istituto di ricerche genetiche Gaetano Salvatore), Avellino, Italy, 30/6/2008.

Algorithms for Interpreting Mass Spectrometry Data, Kolloquium of the Institut für Mathematik und Informatik, Ernst-Moritz-Arndt-Universität Greifswald, Germany, March 30, 2004.

Weighted String Problems in Current Bioinformatics Research, Noon Seminar of the Theoretical Computer Science Group, Freie Universität Berlin, Germany, April 15, 2003.

Weighted Strings and Parikh-Vectors, AG Genominformatik, Univ. Bielefeld, Germany, Oct 17, 2002.

Algorithmic Problems in Protein Identification Using Mass Spectrometry Data, South African Bioinformatics Institute (SANBI), Cape Town, South Africa, June 10, 2002.

Algorithmic Problems in Protein Identification Using Mass Spectrometry Data, School of Computer Science, University of the Witwatersrand, Johannesburg, South Africa, June 21, 2002.

Broadcasting with Dynamic Byzantine Edge Faults, EPFL Lausanne, Switzerland, Feb. 2, 2001.

The Problem of the Unfaithful Husbands: Communication in Distributed Systems (in German), Kolloquium Theorie, Algorithmik und Logik, Technische Universität Berlin, Dec 9, 1999.

c. Presentazioni su invito su Women in Computer Science

String Algorithms in Bioinformatics (in German), Informatica Feminale, Bremen, Germ., Aug 31, 2003.

Frauenförderung am Departement Informatik der ETH Zürich (in German), Informatik-Colloquium, Universität Stuttgart, Germany, June 24, 2001.

PUBBLICAZIONI (*l'ordine degli autori è alfabetico*)

a. Volumi editi

1. Zsuzsanna Lipták, Ricardo Baeza-Yates (eds.): Topical Collection "String Processing and Information Retrieval" of Theory of Computing Systems, Springer Nature, to appear in 2026.
2. Zsuzsanna Lipták, Edleno Silva de Moura, Karina Mariela Figueroa Mora, Ricardo Baeza-Yates (eds.): *Proceedings of the 31st International Symposium on String Processing and Information Retrieval (SPIRE 2024)*, Sept. 23-25, 2024, Puerto Vallarta, Mexico, Lecture Notes in Computer Science (LNCS), Springer (2024).
3. Laurent Bulteau, Zsuzsanna Lipták: 34th Annual Symposium on Combinatorial Pattern Matching, CPM 2023, June 26-28, 2023, Marne-la-Vallée, France. Leibniz International Proceedings in Informatics (LIPIcs) vol. 259, ISBN 978-3-95977-276-1 (2023).
4. Zsuzsanna Lipták, William F. Smyth (eds.): Special issue of Discrete Applied Mathematics on "Combinatorial Algorithms", Journal of Discrete Mathematics 246:1-153 (2018).
5. Jan Kratochvíl, Zsuzsanna Lipták, and Mirka Miller (eds.): Special Issue of the European Journal of Combinatorics on "Combinatorial Algorithms" vol. 68, pages 1-266 (2018).
6. Zsuzsanna Lipták, William F. Smyth (eds.): Proceedings of the 26th International Workshop on Combinatorial Algorithms (IWOCA 2015), Lecture Notes in Computer Science (LNCS), vol. 9538, Springer (2016).

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LINGUE CONOSCIUTE

ungherese, tedesco: *lingue madri*; inglese: *eccellente (Cambridge CPE, grade A)*; italiano: *molto buono*; francese: *medio*.