Curriculum Vitae of Johann Gamper

Professor for Database Systems
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Education

1976–1981	High school ("Realgymnasium") in Brixen, Italy
1981–1987	BSc study in Data Systems Engineering, TU Vienna
1983–1989	Diploma study in Computer Science (5 years, "Diplom-Ingenieur"), TU Vienna. Thesis: HEPAXPERT-I: *An Expert System for Automatic Interpretation of Hepatitis A and B Serology Findings.*
1993–1996	PhD study in Computer Science (*summa cum laude*), RWTH Aachen. PhD thesis: *A Temporal Reasoning and Abstraction Framework for Model-Based Diagnosis Systems.* (Supervisor: Prof. W. Nejdl)

Present Appointment and Main Responsibilities

Since 10/2018, I am a full professor at the Faculty of Computer Science and now Faculty of Engineering of the Free University of Bozen-Bolzano (unibz).

Main responsibilities at unibz:

- Currently: Vice-Rector for Research, member of the Faculty Council, member of the Study Committee for the PhD in Computer Science, representative of unibz in the "Consiglio di gestione" of the SMACT competence centre, head of the Database Systems Research Group, coordinator of the workshop series "Computer Science Research Meets Business"

- In the past: Member of the Editorial Board of bupress, Vice-Dean for Studies, member of the unibz Study Commission, director of the Course Council of the BSc in Computer Science, representative of unibz in the "Consiglio di sorveglianza" of the SMACT competence centre, member of the first Quality Committee of unibz, head of the IDSE research area, representative of the researchers in the Faculty Council, coordinator of the foundation of the Faculty of Computer Science

Professional Experience

2018–now	Vice-Rector for Research, unibz
2018–now	Full professor, Faculty of Computer Science, unibz
2014–2018	Vice-Dean for Studies, Faculty of Computer Science, unibz
2008–2018	Associate professor, Faculty of Computer Science, unibz
2015–now	Head of the Database Systems Group, Faculty of Computer Science, unibz
2017	Italian national habilitation (ASN) for full professor in Computer Engineering ("09/H1 – Sistemi di elaborazione delle informazioni") and in Computer Science ("01/B1 – Informatica")
2015–2015	Coordinator of the IDSE research area, Faculty of Computer Science
2003–2008	Assistant professor, Faculty of Computer Science, unibz
2000–2003	Project leader for the foundation of the Faculty of Computer Science, unibz
1996–2000	PostDoc researcher, EURAC Research, Bozen-Bolzano
1995–1996	University assistant, Institute for Knowledge-Based Systems, University of Hannover (Prof. W. Nejdl)
1993–1995	ERASMUS scholarship, Institute for Knowledge-Based Systems, RWTH Aachen (Prof. W. Nejdl)
1991–1993	University assistant, Department of Medical Computer Sciences, University of Vienna (Prof. K.P. Adlassnig)
1990–1991	Basic military service, Italy
1989–1990 1991–1993	Scientific collaborator, Department of Medical Computer Sciences, University of Vienna (Prof. K.P. Adlassnig)

Selected International Research Experience/Collaborations

International Research Experience

- 2021 and 2022: Prof. Wolfgang Nejdl invited me to join the International Leibniz Future Laboratory for Artificial Intelligence (https://leibniz-ai-lab.de) in Hannover as a Guest Professor for a duration of 2 years. I had to decline this invitation due to my ongoing duties as Vice-Rector for Research at unibz.

- December 1998, November 2015, September 2016: Research visits at the University of Hannover, Prof. Wolfgang Nejdl

- March 2015: Research visit at Humboldt-Universität zu Berlin, Prof. Ulf Leser

- September 2013: Research and teaching visit at Vilnius University, Lithuania, Prof. Algimantas Juozapavicius

- June 2010: Research visit at the University of Zurich, Prof. Michael Böhlen

- September 2002: Research visit at the Stanford University, Infolab, Prof. Wolfgang Nejdl

International Research Collaborations

- Prof. Michael Böhlen, Database Technology Group, University of Zurich, Switzerland (https://www.ifi.uzh.ch/en/dbtg/Staff/Boehlen.html)

- Prof. Christian Jensen, Center for Data-intensive Systems, Aalborg University, Denmark (`https://vbn.aau.dk/en/persons/christian-s-jensen`)

- Prof. Boris Glavic, DBGroup, Illinois Institute of Technology, Chicago, USA (`http://www.cs.iit.edu/~dbgroup/members/bglavic.html`)

- Dr. Dieter Gawlick, Oracle America Inc., USA

- Prof. David Blumenthal, Biomedical Network Science Lab, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany (`https://www.bionets.tf.fau.de`)

- Prof. Ulf Leser, Humboldt-Universität zu Berlin, Germany (`https://www2.informatik.hu-berlin.de/~leser`)

- Prof. Wolfgang Nejdl, L3S Research Center and Leibniz University Hannover, Germany (`https://www.kbs.uni-hannover.de/~nejdl`)

- Prof. Robert Wrembel, Poznan University of Technology, Poland (`http://www.cs.put.poznan.pl/rwrembel`)

- Prof. Carsten Binnig, TU Darmstadt, Germany (`https://www.informatik.tu-darmstadt.de/systems`)

Main Research Interests

- Database systems with a focus on managing and processing temporal and time series data

- Data analytics, aggregation and summary structures for big multidimensional data

- Approximate matching and similarity search for tree- and graph-structured data

- In the past: spatial databases, artificial intelligence, model-based diagnosis, medical informatics, natural language processing, and e-learning

Awards

- *Best paper award* for the paper: M. Ceccarello, A. Dignös, J. Gamper, C. Khnaisser. *Indexing temporal relations for range-duration queries*. 35th International Conference on Scientific and Statistical Database Management (SSDBM), Los Angeles, California, July 10–12, 2023.

- *Best paper award* for the paper: C. Khnaisser, H. Hamrouni, D.B. Blumenthal, A. Dignös, J. Gamper. *Querying temporal anomalies in healthcare information systems and beyond*. 26st European Conference on Advances in Databases and Information Systems (ADBIS), Torino, Italy, 2022.

- *VLDB 2017 – PVLDB volume 10 Best Reviewer Award* for outstanding efforts during the reviewing and decision making for papers submitted to PVLDB volume 10.

- *Best paper award* for the paper: M. Shekelyan, A. Dignös, J. Gamper. *Sparse prefix sums*. 21st European Conference on Advances in Databases and Information Systems (ADBIS), Nikosia, Cyprus, 2017.

- *Best paper award* for the paper: D. Piatov, S. Helmer, J. Gamper. *Interactive time series subsequence matching*. 21st European Conference on Advances in Databases and Information Systems (ADBIS), Nikosia, Cyprus, 2017.

- The following paper was selected for the *21st Annual Best of Computing 2016 – Notable Books and Articles, by ACM Computing Reviews*: A. Dignös, M.H. Böhlen, J. Gamper, C.S. Jensen. *Extending the kernel of a relational DBMS with comprehensive support for sequenced temporal queries*. ACM Transactions on Database Systems (TODS), 2016.

- *Best paper award* for the paper: D.B. Blumenthal, J. Gamper. *Exact computation of graph edit distance for uniform and non-uniform metric edit costs*. 11th IAPR-TC-15 International Workshop on Graph-Based Representations in Pattern Recognition (GbRPR), Anacapri, Italy, 2017.

- *Honorable Mention Award* for the work in the Quality Committee of the Free University of Bozen-Bolzano, awarded by unibz at the Dies Academicus 2016.

- *Honorable Mention Award* for the scientific contributions to database research, awarded by unibz at the Dies Academicus 2015.

- *Outstanding Paper Award* for the paper: A. Abel, J. Gamper, J. Knapp, V. Weber. *Describing verb valency in an electronic learner's dictionary: linguistic and technical implications*. World Conference on Educational Multimedia, Hypermedia & Telecommunications (ED-MEDIA), Honolulu, Hawaii, 2003.

- *Best Paper Award* in the session "Adaptive Hypermedia in Education" for the paper: J. Gamper and J. Knapp. Tutoring in a language learning system. In *Proc. of the 6th World Multiconference on Systemics, Cybernetics and Informatics*, Orlando, Florida, 2002.

- *"Anerkennungspreis 2002 für Forschungs- und Studienprojekte der Eduard-Wallnöfer-Stiftung"* for the ELDIT system, Innsbruck, Austria, 2002.

- *"Borchers-Plakette"* for the excellent research in my PhD thesis, awarded by "Freunde und Förderer der RWTH Aachen", Germany, 1997.

Research Projects and Funds

During my time at unibz, I was able to acquire almost 2.5 Mio. EUR research funding, including funding from the EU (6FP IST STREP, INTERREG-IV, EFRE-FESR), Joint Projects DFG-South Tyrol, Italian Ministry, Province of Bozen-Bolzano, Health Authority South Tyrol, Municipality of Bozen-Bolzano, and private companies (Oracle America Inc., ACS Data Systems).

Some projects address *fundamental research* in database systems (e.g., ISTEP, DASTS, AQUIST, TPG, SYRA), while many others focus on *interdisciplinary research* with partners from different application domains, e.g., medicine (DYHEALTHNET, MEDAN), agriculture (DASA, DASA2), manufacturing (PREMISE, TASMA), e-government (EBZ, EMAYOR, PEOPLE), tourism (O-STAR, FITTS), and finance (ISMARD). The interdisciplinary research projects contributed significantly to the *technology and know-how transfer* from the university to the territory.

Summary of Research Funds

Project name	Period	Funding	Funding agency	Role
DyHealthNet	01/2024–12/2026	150,000	Joint Projects DFG–South Tyrol	PI$_{unibz}$
ONFOODS	11/2022–10/2025	75,000	PNRR M4C2 "Paternariato esteso" (Total funding unibz $\approx$ 2 MEUR)	M
iNEST	09/2022–12/2025	95,000	PNRR M4C2 Innovation Ecosystem (Total funding unibz $\approx$ 5.5 MEUR)	M
Bonus	02/2023–01/2026	50,000	unibz call near misses 2022	PI
PreMIsE	09/2020–12/2022	130,000	EFRE-FESR Südtirol/Alto Adige	PI
ISTeP	10/2020–09/2023	260,000	Province of Bozen-Bolzano	PI
ISMarD	08/2018–01/2022	120,000	unibz ID call 2018	M
TASMA	01/2018–09/2021	66,000	unibz CRC call 2017	PI
DaSTS	09/2017–08/2018	74,000	Oracle America (USA)	PI
Hail Risk	05/2017–11/2020	43,000	unibz ID call 2016	CI
EMMA	01/2017–01/2020	70,000	unibz CRC call 2016	PI
TPG	11/2015–10/2018	50,000	unibz CRC call 2015	PI
DASA2	01/2015–12/2016	50,000	unibz CRC call 2014	PI
DASA	03/2014–02/2015	25,000	unibz Foundation	PI
BZ-Traffic	07/2013–02/2014	24,000	Municipality of Bolzano	PI
SyRA	08/2012–01/2015	20,000	unibz CRC call 2012	PI
O-STAR	01/2012–12/2014	63,000	INTERREG-IV	PI$_{unibz}$
AQuiST	04/2011–03/2014	117,000	Province of Bozen-Bolzano	PI
FITTS	07/2011–12/2012	75,000	ACS Data Systems SpA	PI
MEDAN	07/2009–06/2012	187,000	Health Authority South Tyrol	PI
OptIMuN	07/2010–06/2011	25,000	unibz CRC call 2010	PI
TTDBT	01/2005–11/2007	10,000	unibz	PI
eMayor	01/2004–02/2006	110,000	6FP IST STREP	PI$_{unibz}$
eBZ 2015	01/2006–12/2010	232,000	Municipality of Bolzano	PI
PEOPLE	01/2003–12/2004	130,000	Italian Ministry	PI$_{unibz}$
eBZ – Digital City	01/2002–06/2005	151,000	Municipality of Bolzano	PI
MiRIS	06/2001–06/2003	45,000	EURAC Research	PI$_{unibz}$
2 MSc bursaries	2005–2006	14,000	Municipality of Bolzano	PI
Total funding acquired		**2,461,000**		

PI = principal investigator, CI = co-investigator, PI$_{unibz}$ = principal investigator on behalf of unibz
M = member

Selected Software Products

While the implementation of prototype systems plays an important role in all of my research projects, in some projects the developed solutions went beyond pure research prototypes and progressed into industry-strength software systems:

- Temporal PostgreSQL: This is an extension of the Open Source PostgreSQL database system, providing comprehensive and native support for sequenced temporal queries. We implemented our solution in the database kernel and submitted it as a patch to the PostgreSQL community with the aim to be included in future releases of the database. The patch is in the reviewing phase. Accessible at: `http://tpg.inf.unibz.it`

- MiRIS: Legal information system with the aim to promote the development of minority rights standards in Europe by providing easily accessible information about the implementation of minority rights. Accessible at: `http://miris.eurac.edu`

- Hepaxpert: An expert system for the interpretation of Hepatitis A, B, and C serology test results. I developed and implemented the first stable version for the interpretation of Hepatitis A and B serology tests when I was a MSc student and scientific collaborator

at the Department of Medical Computer Sciences, University of Vienna. The system progressed into a commercial system, which is distributed by Medexter Healthcare GmbH, Borschkegasse 7/5, A-1090 Vienna, Austria. Accessible at: `www.medexter.com`

Publications

In the following, GII-GRIN refers to the classification of conferences according to the Italian Association of Computer Science and Engineering professors (`https://scie.lcc.uma.es:8443/gii-grin-scie-rating/ratingSearch.jsf`), and SJR refers to the Scimago Journal Ranking (`https://www.scimagojr.com`).

Summary

- 30+ journal publications (including 2 TODS, 6 VLDB Journal, 3 PVLDB, 1 TKDE, 5 Information Systems, 1 BMC Bioinformatics)

- 100+ conference/workshop publications (including 2 SIGMOD, 2 VLDB, 5 ICDE, 7 EDBT, 5 CIKM, 1 KDD, 1 WWW, 1 IJCAI, 1 ECAI)

- 14 edited conference proceedings/special issues

- 5 books/book chapters/edited books

- 23 out of 34 journal articles are in Q1 in the Scimago Journal Ranking

- 18 of my conference publications are in Class 1 – Rating A+/A++ outlets, and 11 are in Class 2 – Rating A/A- outlets according to the GII-GRIN classification

- Bibliometric data:

Source	Citations	h-index	i10-index
Google Scholar	2905	30	66
Scopus	1205	21	39

Under Review

Journal Publications

[1] M. Ceccarello and J. Gamper. Fast and scalable mining of time series motifs with probabilistic guarantees. *PVLDB*, 15(13): 3841–3853, 2022. [SJR Q1]

[2] A. Dignös, M. H. Böhlen, J. Gamper, C. S. Jensen and P. Moser. Leveraging range joins for the computation of overlap joins. *The VLDB Journal*, 2022. [SJR Q1]

[3] D. B. Blumenthal, S. Bougleux, A. Dignös, J. Gamper. Enumerating dissimilar minimum cost perfect and error-correcting bipartite matchings for robust data matching. *Information Sciences*, 2022. [SJR Q1]

[4] D. B. Blumenthal, N. Boria, S. Bougleux, L. Brun, J. Gamper, B. Gaüzère. Scalable generalized median graph estimation and its manifold use in bioinformatics, clustering, classification, and indexing. *Information Systems*, 2021. [SJR Q1]

[5] D. B. Blumenthal, J. Gamper, S. Bougleux, L. Brun. Upper bounding graph edit distance based on rings and machine learning. *International Journal of Pattern Recognition and Artificial Intelligence*, 2021. [SJR Q3]

[6] T. Chondrogiannis, P. Bouros, J. Gamper, U. Leser, D. B. Blumenthal. Finding k-shortest paths with limited overlap. *The VLDB Journal*, 29(5): 1023–1047, 2020. [SJR Q1]

[7] D. B. Blumenthal, N. Boria, J. Gamper, S. Bougleux, and L. Brun. Comparing heuristics for graph edit distance computation. *The VLDB Journal*, 29: 419–458, 2020. [SJR Q1]

[8] D. Blumenthal and J. Gamper. On the exact computation of the graph edit distance. *Pattern Recognition Letters*, 134: 46–57, 2020. [SJR Q1]

[9] V. Del Fatto, A. Dignös, G. Raimato, L. Maccioni, Y. Borgianni, and J. Gamper: Visual time period analysis: a multimedia analytics application for summarizing and analyzing eye-tracking experiments. *Multimedia Tools and Applications*, 2019. [SJR Q2]

[10] A. Dignös, B. Glavic, X. Niu, J. Gamper and M. H. Böhlen. Snapshot semantics for temporal multiset relations. *PVLDB*, 12(6): 639–652, 2019.   [SJR Q1]

[11] M. Shekelyan, A. Dignös, and J. Gamper. Sparse prefix sums: constant-time range sum queries over sparse multidimensional data cubes. *Information Systems*, 82: 136–147, 2019. [SJR Q1]

[12] D. Piatov, S. Helmer, A. Dignös, and J. Gamper. Interactive and space-efficient multi-dimensional time series subsequence matching. *Information Systems*, 82: 121–135, 2019. [SJR Q1]

[13] D. Blumenthal and J. Gamper. Improved lower bounds for graph edit distance. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 30(3): 503–516, 2018. [SJR Q1]

[14] M. Shekelyan, A. Dignös, and J. Gamper. DigitHist: a histogram-based data summary with tight error bounds. *PVLDB*, 10(11): 1514–1525, 2017.   [SJR Q1]

[15] G. Mahlknecht, A. Dignös, and J. Gamper. A scalable dynamic programming scheme for the computation of optimal k-segments for ordered data. *Information Systems (IS)*, 70:2–17, 2017. [SJR Q1]

[16] A. Dignös, M.H. Böhlen, J. Gamper, and C.S. Jensen. Extending the kernel of a relational DBMS with comprehensive support for sequenced temporal queries. *ACM Transactions on Database Systems (TODS)*, 41(4): 26:1–26:46, 2016. [SJR Q1]

[17] D. Taliun, J. Gamper, U. Leser, and C. Pattaro. Fast sampling-based whole-genome haplotype block recognition. *IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB)*, 13(2):315–325, 2016. [SJR Q2]

[18] N. Krismer, D. Silbernagl, J. Gamper, and G. Specht. osmPti2mmds – Erstellung von multimodalen Datensets aus OpenStreetMap und ÖPNV-Informationen. *AGIT Journal*, 2:185–190, 2016.

[19] D. Taliun, J. Gamper, and C. Pattaro. Efficient haplotype block recognition of very long and dense genetic sequences. *BMC Bioinformatics*, 15(10), 2014. [SJR Q1]

[20] N. Augsten, and M.H. Böhlen, and J. Gamper. The address connector – noninvasive synchronization of hierarchical data sources. *Knowledge and Information Systems (KAIS)*, 37(3):639–663, 2013. [SJR Q1]

[21] J. Gordevičius, J. Gamper, and M. H. Böhlen. Parsimonious temporal aggregation. *The VLDB Journal*, 21(3): 309–332, 2012. [SJR Q1]

[22] N. Augsten, M. H. Böhlen, C. Dyreson, and J. Gamper. Windowed pq-grams for approximate joins of data-centric XML. *The VLDB Journal*, 21(4): 463–488, 2012. [SJR Q1]

[23] M. Khayati, J. M. Anderson, M. H. Böhlen, J. Gamper, and M. Mitterer. Similarity of chemotherapy histories based on imputed values. *International Journal of Medical Engineering and Informatics (IJMEI)*, 4(3): 282–298, 2012. [SJR Q4]

[24] I. Timko, M. H. Böhlen, and J. Gamper. Sequenced spatiotemporal aggregation for coarse query granularities. *The VLDB Journal*, 20(5): 721-741, 2011. [SJR Q1]

[25] M. Akinde, M. H. Böhlen, D. Chatziantoniou, and J. Gamper. θ-Constrained multi-dimensional aggregation. *Information Systems (IS)*, 36(2): 341–358, 2011. [SJR Q1]

[26] N. Augsten, M. H. Böhlen, and J. Gamper. The pq-gram distance between ordered labeled trees. *ACM Transactions on Database Systems (TODS)*, 35(1):1-36, 2010. [SJR Q1]

[27] M. H. Böhlen, J. Gamper, and C. S. Jensen. An algebraic framework for temporal attribute characteristics. *Annals of Mathematics and Artificial Intelligence (AMAI)*, 46(3): 349–374, March 2006. [SJR Q3]

[28] P. Brusilovsky, J. Knapp, and J. Gamper. Supporting teachers as content authors in intelligent educational systems. *International Journal of Knowledge and Learning*, 2(3/4): 191–215, 2006. [SJR Q4]

[29] J. Gamper and J. Knapp. A review of intelligent CALL systems. *Computer Assisted Language Learning*, 15(4):329–342, October 2002.

[30] J. Gamper and J. Knapp. Adaptation in a vocabulary acquisition system. *Zeitschrift Künstliche Intelligenz*, 3(2):27–30, 2002.

[31] J. Gamper and O. Stock. Corpus-based terminology. *TERMINOLOGY*, 5(2):147–159, 1998/1999.

[32] J. Gamper and W. Nejdl. Abstract temporal diagnosis in medical domains. *Artificial Intelligence in Medicine (AIM)*, 10(3):209–234, 1997. [SJR Q1]

[33] J. Gamper and K.P. Adlassnig. Fuzzy-Mengen in der Medizin. *GIT Labor-Medizin*, 15:409–410, October 1992.

[34] C. Chizzali-Bonfadin, K.P. Adlassnig, W. Horak, and J. Gamper. Das integrierte Datenbank- und Expertensystem HEPAXPERT-II: Automatische Interpretation von Hepatitis-A- und B-Serologie-Befunden. *GIT Labor-Medizin*, 15:408, October 1992.

Conference/Workshop Publications

[1] M. Ceccarello, A. Dignös, J. Gamper, C. Khnaisser. Indexing temporal relations for range-duration queries. *Proc. of the 35th International Conference on Scientific and Statistical Database Management (SSDBM)*, Los Angeles, California, July 10–12, 2023. [GII-GRIN Class 3 − Rating B]

[2] M. Mirabi, L. Fathi, A. Dignös, J. Gamper, C. Binnig. A new primitive for processing temporal joins. *Proc. of the 18th International Symposium on Spatial and Temporal Data (SSTD)*, Calgary, Alberta, Canada, August 23–25, 2023. [GII-GRIN Class 3 − Rating B]

[3] M. Mozaffari, A. Dignös, H. Hamrouni and J. Gamper. NoSQL schema extraction from temporal conceptual model: a case for Cassandra. *Proc. of the 27th European Conference on Advances in Databases and Information Systems (ADBIS)*, Barcelona, September 4–7, 2023.

[4] K. Sabeh, M. Kacimi, J. Gamper. CAVE: Correcting attribute values in e-commere profiles. In *Proc. of the 31th ACM Conference on Information and Knowledge Management (CIKM)*, Atlanta, Georgia, USA, October 17–21, 2022. [GII-GRIN Class 1 − Rating A+]

[5] A. Charane, M. Ceccarello, A. Dignös, J. Gamper. What's new in temporal databases? In *Proc. of the 26th European Conference on Advances in Databases and Information Systems (ADBIS)*, Torino, Italy, September 5–8, 2022. (Invited paper).

Aart van Bezooijen

[6] C. Khnaisser, H. Hamrouni, D.B. Blumenthal, A. Dignös, J. Gamper. Querying temporal anomalies in healthcare information systems and beyond. In *Proc. of the 26th European Conference on Advances in Databases and Information Systems (ADBIS)*, Torino, Italy, September 5–8, 2022. [GII-GRIN Class 3 − Rating B-]

[7] K. Sabeh, M. Kacimi, J. Gamper. OpenBrand: open brand value extraction from product descriptions. In *Proc. of the 5th Workshop on e-Commerce and NLP (ECNLP)*, Dublin, Ireland, May 26, Association for Computational Linguistics, 2022.

[8] A. Charane, M. Ceccarello, A. Dignös, J. Gamper. Efficient computation of all-window length correlations. In *Proc. of the 15th International Baltic Conference on Databases and Information Systems (DB&IS)*, Riga, Latvia, July 4–6, 2022.

[9] M. Shekelyan, J. Gamper, A. Dignös, M. Garofalakis. Approximating multidimensional range counts with maximum error guarantees. In *Proc. of the 37th IEEE International Conference on Data Engineering (ICDE)*, Chania, Crete, April 19-22, 2021.   [GII-GRIN Class 1 − Rating A++]

[10] T. Liu, P. Coletti, A. Dignös, J. Gamper, M. Murgia. Correlation graph analytics for stock time series data. In *Proc. of the 24th International Conference on Extending Database Technology (EDBT), Demo track*, Nicosia, Cyprus, March 23–26, 2021. [GII-GRIN Class 2 − Rating A]

[11] J. Gamper, A. Dignös. Processing temporal and time series data: present state and future challenges. In *Proc. of the 24th European Conference on Advances in Databases and Information Systems (ADBIS)*, pages 8–14, Lyon, France, August 25–27, 2020.

[12] A. Behrend, A. Dignös, M. Rottmann, J. Gamper, P. Schmiegelt, K. Kahl, and H. Voigt. Period index: a learned 2D hash index for range and duration Queries. In *Proc. of the 16th International Symposium on Spatial and Temporal Databases (SSTD)*, pages 100–109, Vienna, Austria, August 19–21, 2019. [GII-GRIN Class 3 − Rating B]

[13] N. Duran, G. Mahlknecht, A. Dignös, and J. Gamper. HOTPERIODS: visual correlation analysis of interval data. In *Proc. of the 16th International Symposium on Spatial and Temporal Databases (SSTD), Demo track*, pages 178–181, Vienna, Austria, August 19–21, 2019. [GII-GRIN Class 3 − Rating B]

[14] D. B. Blumenthal, S. Bougleux, J. Gamper, and L. Brun. GEDLIB: A C++ library for graph edit distance computation. In *Proc. of the 12th IAPR-TC-15 International Workshop on Graph-Based Representations in Pattern Recognition (GbRPR)*, pages 14–24, Tours, France, June 19-21, 2019.

[15] T. Chondrogiannis, P. Bouros, J. Gamper, U. Leser, and D.B. Blumenthal. Finding k-dissimilar paths with minimum collective length. In *Proc. of the 26th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL/GIS)*, pages 404–407, Seattle, Washington, USA, November 6–9, 2018.   [GII-GRIN Class 3 − Rating B]

[16] M.H. Böhlen, A. Dignös, J. Gamper, and C.S. Jensen. Database technology for processing temporal data. In *Proc. of the 25th International Symposium on Temporal Representation and Reasoning (TIME)*, pages 2.1–2:7, Warsaw, Poland, 15–17 October, 2018. (Invited paper).

[17] V. Del Fatto, A. Dignös, and J. Gamper. Time°diff: a visual approach to compare period data. In *Proc. of the 22nd International Conference Information Visualisation (iV)*, pages 38–43, Salerno, Italy, 10–13 July, 2018.

[18] D.B. Blumenthal, É. Daller, S. Bougleux, L. Brun, and J. Gamper. Quasimetric graph edit distance as a compact quadratic assignment problem. In *Proc. of the 24th International Conference on Pattern Recognition (ICPR)*, pages 934–939, Beijing, China, August 20–24, 2018. [GII-GRIN Class 2 − Rating A-]

[19] D.B. Blumenthal, S. Bougleux, J. Gamper, and L. Brun. Ring based approximation of graph edit distance. In *Proc. of the Joint IAPR International Workshop on Structural, Syntactic, and Statistical Pattern Recognition (S+SSPR)*, pages 293–303, Beijing, China, August 17–19, 2018.

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Books, Book Chapters and Edited Books

[1] J. Gamper, M. Böhlen, and C.S. Jensen. Temporal aggregation. In Ling Liu and M. Tamer Özsu (editors), *Encyclopedia of Database Systems*, pages 2924–2929. Springer-Verlag, 2009.

[2] M. Böhlen, J. Gamper, C.S. Jensen, and R. T. Snodgrass. SQL-based temporal query languages. In Ling Liu and M. Tamer Özsu (editors), *Encyclopedia of Database Systems*, pages 2762–2768. Springer-Verlag, 2009.

[3] A. Mitrakas, P. Hengeveld, D. Polemi, and J. Gamper (editors). *Secure E-Government Web Services*. IDEA Group Publishing, Hershey, USA, 2007.

[4] A. Mitrakas, P. Hengeveld, D. Polemi, and J. Gamper. Towards secure e-government. In *Secure E-Government Web Services*, pages 1–28. IDEA Group Publishing, Hershey, USA, 2007.

[5] J. Gamper. *A temporal reasoning and abstraction framework for model-based diagnosis systems*. Dissertationen zur Künstlichen Intelligenz, Band 136, ISBN 3-89601-136-7, July 1996. "infix"-Verlag, St. Augustin.

Publications in Scientific Magazines

[1] W. Costanzi and J. Gamper. Serving the city safely. *Academia*, 40:56–57, April 2006.

[2] J. Gamper and J. Knapp. Simple, fast and powerful. *Academia*, 26, 2001.

[3] J. Gamper and J. Knapp. Implementation of an electronic dictionary. *Academia*, 22, 2000.

[4] J. Gamper. Construction of a parallel text corpus — Encoding primary data. *Academia*, 18:32–33, 1999.

[5] A. Abel, S. Cavagnoli, J. Gamper, A. Schweigkofler, and V. Weber. Sprachenzentrum: Eine Zusammenarbeit mit der Freien Universität Bozen. *Academia*, 19:5–7, 1999.

[6] J. Gamper. Adaptive Hyperbücher — Wenn sich Lehrbücher auf ihre Benutzer einstellen können. *Academia*, 20, 1999.

[7] A. Abel, S. Cavagnoli, B. Ciola, S. Coluccia, J. Gamper, F. Maganzi, F. Mayer, and D. Veronesi. Convegno di studi linguistica giuridica italiana e tedesca: obiettivi, approcci, risultati. *Academia*, 17, 1998/99.

[8] J. Gamper. CATEx — A project proposal. *Academia*, 14:10–12, 1998.

[9] J. Gamper and F. Steimann. Medizinische Expertensysteme — Eine kritische Betrachtung. *APIS — Zeitschrift für Politik, Ethik, Wissenschaft und Kultur im Gesundheitswesen*, 1996.

Invited and Keynote Presentations, Seminars, Tutorials

A few selected and more recent invited presentations are listed below:

- Invited tutorial: *What's New in Temporal Databases?*. 26th European Conference on Advances in Database and Information Systems (ADBIS), Torino, Italy, September 5–8, 2022.

- Keynote presentation: *Key Challenges in Processing Temporal and Time Series Data*. 13th International Conference on Management of Digital EcoSystems (MEDES), Hammamet, Tunisia, November 1–3, 2021.

- Keynote presentation: *Processing Temporal and Time Series Data: Present State and Future Challenges*. 24th European Conference on Advances in Databases and Information Systems (ADBIS), Lyon, France, August 25–27, 2020.

- Invited presentation: *Data Analytics for a Sustainable Agriculture*. Workshop on Digital Technologies & Responsibility, Akademie Meran, December 6, 2019.

- Invited presentation: *Internationalisation at the Free University of Bozen-Bolzano*. 100th Anniversary of the Poznan University of Technology, Poznan, May 21, 2019.

- Keynote presentation: *Database Technology for Processing Temporal Data*. 25th International Symposium on Temporal Representation and Reasoning (TIME), Warsaw, Poland, October 15–17, 2018.

- Keynote presentation: *Processing temporal data: existing technologies and open challenges*. Workshop on Data-Driven Approaches for Analyzing and Managing Scholarly Data, co-located with ADBIS 2017, Nikosia, Cyprus, September 24, 2017.

- Invited presentation: *Data analysis and monitoring for a smart agriculture*. Workshop on IoT, unibz, July 11, 2017.

- Invited tutorial: *Temporal data management: an overview*. Seventh European Business Intelligence & Big Data Summer School (eBISS 2017), Brussels, Belgium, July 2–7, 2017.

- Invited seminar: *Extending the kernel of a RDBMS to support temporal queries*. University of Lausanne, May 24, 2016.

- Invited presentation: *How to aggregate temporal data?* 3rd International Alexandria Workshop, co-located with the 20th International Conference on Theory and Practice of Digital Libraries (TPDL-16), Hannover, September 8–9, 2016.

- Invited presentation: *Benefits and experiences of being accredited – lessons learnt and changes implemented in the frame of an Euro-Inf accreditation procedure*. EQANIE Workshop, co-located with the ASIIN International Conference 2016 on "Quality Management in Higher Education – the Mystery of its Untapped Potential", Berlin, May 3–4, 2016.

- Invited presentation: *New routing methods for the development of advanced information systems for mobility*. Mobilitätstagung 2016, Messe Bozen, March 17, 2016.

- Invited seminar: *A native solution for processing interval-timestamped data in a RDBMS*. Leibniz Universität Hannover, November 20, 2015.

- Invited presentation: *Datenanalyse und Monitoring für eine nachhaltige Landwirtschaft*. Research Day at the Free University of Bozen-Bolzano, October 8, 2015.

- Invited seminar: *Querying temporal data in SQL-based DBMSs – a principled solution*. Philipps University of Marburg, September 17, 2015.

- Invited seminar: *Native support for processing interval timestamped data in RDBMSs*. University of Trento, May 20, 2015.

- Invited seminar: *Native support for processing interval timestamped data in RDBMSs*. Humboldt Universität zu Berlin, March 30, 2015.

- Invited presentation: *Shortest path routing in continental scale networks*. EUREGIO Summerschool 2014 for high school students, jointly organized by the Universities of Trento and Bozen-Bolzano, August 28, 2014.

- Invited seminar: *Using isochrones for reachability analysis in multimodal networks*. University of Salzburg, October 28, 2013.

- Invited seminar: *Using isochrones for reachability analysis in multimodal networks*. University of Innsbruck, October 16, 2013.

- Invited presentation: *Isochrones in multimodal networks*. Vilnius University, September 10, 2013.

- Invited presentation: *Landmark-based estimation of shortest path*. Vilnius University, September 11, 2013.

- Invited presentation: *A general temporal aggregation framework*. Czech Technical University in Prague, December 18, 2008.

Experience in Academic Teaching

Courses

I taught courses in German, Italian, and English at the undergraduate, post-graduate and PhD level and at different universities: unibz, University of Hannover (1994–1996), RWTH Aachen (1993–1994), and University of Vienna (1992–1993).

While most of the teaching was for Computer Science students, I taught also introductory computer science courses for other faculties, e.g., *Foundations of Computer Science* for the BSc in Industrial Engineering (unibz, 1999/2000–2001/02), and *Computing* for the BSc in Agricultural Science and the BSc in Economics (unibz, 1999/2000–2002/03).

Free University of Bozen-Bolzano

- *Database Management Systems* (BSc): 2019/20–now
  40 h lecture and 20 h exercise

- Module *Empirical and Experimental Computer Science Research Methods* in the course "Research Methods" (PhD): 6 h lecture, 2015/16–2017/18

- *Advanced Data Management Technologies* (MSc): 2013/14–2018/19
  48 h lecture and 24 h exercises

- *Data Warehousing* (MSc): 2009/10–2012/13
  24 h lecture

- *Temporal and Spatial Databases* (MSc): 2005/06–2008/09, 2011/12-2012/13
  24 h lecture and 12 h exercise

- *Database Management and Tuning* (MSc): 2012/13
  24 h lecture and 12 h exercise

- *Distributed Database Systems* (MSc): 2007/08–2008/09
  24 h lecture and 12 h exercise

- *Seminar in Databases* (MSc): 2008/09–2012/13
  24 h lecture and 12 h exercise

- *Database Management Systems* (BSc): 2004/05–2010/11
  24 h lecture and 12 h exercise

- *Programming Paradigms* (BSc): 2013/14–2018/19
  36 h lecture and 18 h exercises

- *Introduction to Programming* (BSc): 2001/02–2003/04
  36 h lecture and 18 h exercise

- *Computing* (BSc in Agricultural Science and BSc in Economics): 1999/2000–2002/03
  30 h lecture and 20 h exercise

- *Foundations of Computer Science* (BSc in Industrial Engineering): 1999/2000–2001/02
  20 h lecture and 30 h exercise

University of Hannover

- Exercises in *Artificial Intelligence* (MSc): 1994/95–1995/96

RWTH Aachen

- Exercises in *Expert Systems* (MSc): 1993/94

- Seminar in *Distributed Artificial Intelligence* (MSc): 1993/94

University of Vienna

- Seminar in *Computer Applications in Medicine* (MSc): 1992/93

Other Teaching Experiences

- I taught the module *Data Warehousing and Business Intelligence* (8 hours) in the university course "Digital Transformation Expert", organized by the UMIT Academy, Innsbruck, May 2021.

- I gave a tutorial on *Temporal data management* at the Seventh European Business Intelligence & Big Data Summer School (eBISS 2017) in Brussels. This Summer School is part of the *Erasmus Mundus Joint Master Degree Programme in Information Technologies for Business Intelligence (IT4BI)*.

- I gave a lecture on *Shortest path routing in continental scale networks* at the *EUREGIO Summerschool 2014* for high school students, jointly organized by the Universities of Trento and Bozen-Bolzano, August 28, 2014

- In the context of the *LLP Erasmus Programme for Staff Mobility*, I spent a week at the Vilnius University, Lituania, in September 2013. The aim of this visit was to exchange experience and best practices in research, teaching, and quality assurance. I also delivered the following two lectures to the students:

    - *Isochrones in multimodal networks* (3 hours), BSc/MSc/PhD, Vilnius University, September 10, 2013.
    - *Landmark-based estimation of shortest path* (3 hours), BSc/MSc/PhD, Vilnius University, September 11, 2013.

Student Supervision

- 17 PhD theses

- 9 external reviewer of PhD thesis and/or final exam commission member

- 26 MSc theses

- 47 BSc theses

Supervision of PhD Students

- Siddeeq Shahbaz: *Dynamic association graph inference for applications in biomedicine*, unibz, 2022–2024.

- Mohamed Sabri Hafidi: *CHRISpredict: privacy preserving AI platform for personalized risk prediction*, unibz, 2022–2024.

- Rasheed Zeeshan: *CHRIS2people: a framework to increase population health based on the analysis of large data collections*, unibz, 2022–2024.

- Kassem Sabeh: *Attribute-value extraction from long and rich product descriptions*, unibz, 2021–2024.

- Adam Charane: *Time series analytics using ML methods*, unibz, 2021–2024.

- Giovanni Mahlknecht: *Temporal aggregation for data analytics*, unibz, 2016–2020.

- David Blumenthal: *New techniques for graph edit distance computation*, unibz, 2016–2019.

- Michael Shekelyan: *Reliable data summaries for multidimensional data using histograms*, unibz, 2015–2018.

- Nikolaus Krismer: *Isochrones in multimodal spatial networks*, University of Innsbruck, 2014–2018. (Co-supervision with Prof. Günther Specht, University of Innsbruck)

- Theodoros Chondrogiannis: *Scalable solutions for distance and shortest path queries in road networks*, unibz, 2013–2017.

- Daniel Taliun: *Efficient whole genome haplotype block partitioning using linkage disequilibrium*, unibz, 2011–2015.

- Bruno Cadonna: *Sequenced event set pattern matching*, unibz, 2008–2012.

- Markus Innerebner: *Computing isochrones in multi-modal network databases*, unibz, 2007–2012.

- Juozas Gordevicius: *Summarizing temporal data with approximate temporal aggregation and ranking*, unibz, 2007–2010.

- Romans Kasperovics: *Handling recurrent events in relational databases*, unibz, 2005-2009. (Co-supervision with Prof. M.H. Böhlen)

- Nikolaus Augsten: *Approximate join of hierarchical data structures*, Aalborg University, Denmark, 2002–2006. (Co-supervision with Prof. M.H. Böhlen)

- Judith Knapp: *A new approach to CALL content authoring*, University of Hannover, 2000–2004. (Co-supervision with Prof. W. Nejdl)

External Examiner of PhD Theses

- External reviewer of the PhD Thesis for Beatrice Amico, University of Verona, February 2023. Thesis title: *Explainable temporal data mining techniques to support the prediction task in medicine*. Supervisor: Carlo Combi.

- External reviewer of the PhD Thesis for Ionel Eduard Stan, University of Parma, January 2023. Thesis title: *Foundations of modal symbolic learning*. Supervisor: Guido Sciavicco.

- External reviewer and member of PhD Thesis Defense Committee for Michele Linardi, University Paris Descartes, August 2019. Thesis title: *Variable-length similarity search for very large data series – subsequence matching, motif and discord detection*. Supervisor: Themis Palpanas.

- Member of PhD Thesis Defense Committee for Saulius Astromskis, unibz, November 2015. Thesis title: *A non-invasive approach to software development process analytics*.

- Member of PhD Thesis Defense Committee for Anton Georgiev, unibz, November 2015. Thesis title: *Computing-oriented optimization techniques for energy-aware mobile software design*.

- Member of PhD Thesis Defense Committee for Ali Fawzi Najm Al-Shammari, unibz, October 2014. Thesis title: *OVVM: Open vote verification technique for DRE systems*.

- Member of PhD Thesis Defense Committee for Yazmín Angélica Ibáñez Garcia, unibz, October 2014. Thesis title: *Reasoning over description logic ontologies under non-standard assumptions*.

- External reviewer and member of PhD Thesis Defense Committee for Benjamin Gufler, Technical University of Munich, March 2013. Thesis title: *Load-balanced massively parallel distributed data exploration*. Supervisor: Alfons Kemper.

- External reviewer for the PhD Thesis of Cristian Peraboni, University of Milan, March 2009. Thesis title: *eParticipation technologies to support digital citizenship*. Supervisor: Fiorella De Cindio.

- External reviewer and member of PhD Thesis Defense Committee for Khadija Abied Ali, Czech Technical University in Prague, Faculty of Electrical Engineering, December 2008. Thesis title: *A temporal extension of XML*. Supervisor: Jaroslav Pokorny.

- External examiner for the PhD mid-term exam of Pensiri Manomaisupat, University of Surrey, Department of Computing, UK, May 2004. Thesis title: *Automatic text categorisation using terminology resources*.

Advanced Training

- Participation in the 4-hour *Workshop on Fairness and Anti-Bias in Hiring Procedures for Professorships*, delivered by Dr. Maria Mucke from the University of Klagenfurt, July 4, 2023.

- Participation in the 35-hour course *Academic Teaching Excellence – English as a Medium of Instruction*, delivered by the British Council, 28.09.2015–02.10.2015.

- Participation in the course "*Le procedure di accreditamento periodico e la valutazione dei requisiti di assicurazione qualità*", prof. Massimo Tronci, Fondazione CRUI, Rome, July 2, 2015.

Academic Activities, Services, Memberships

PC Memberships at International Conferences and Workshops

- *International Conference on Very Large Data Bases (VLDB)*: 2021, 2020, 2019, 2018 (Demo track), 2017, 2015 (Demo track), 2007 (PhD workshop)

- *ACM SIGMOD International Conference on Management of Data (SIGMOD)*: 2023, 2019 (demo track), 2014 (demo track), 2011

- *IEEE International Conference on Data Engineering (ICDE)*: 2017, 2016, 2010

- *International Conference on Extending Database Technology (EDBT)*: 2024, 2021, 2019, 2017, 2016, 2015, 2013, 2011, 2009

- *ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL/GIS)*: 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011

- *IEEE International Conference on Mobile Data Management (MDM)*: 2018

- *International Conference on Information and Knowledge Management (CIKM)*: 2017

- *International Conference on Scientific and Statistical Database Management (SSDBM)*: 2015, 2014, 2012, 2011, 2010

- *International Conference on Database Systems for Advanced Applications (DASFAA)*: 2018, 2017, 2015, 2014

- *European Conference on Advances in Databases and Information Systems (ADBIS)*: 2023, 2022, 2021, 2020, 2015, 2014, 2013, 2012, 2009, 2008.

- *International Symposium on Spatial and Temporal Databases (SSTD)*: 2019, 2017

- *International Workshop on Design, Optimization, Languages and Analytical Processing of Big Data (DOLAP)*: 2024, 2023, 2022, 2021, 2020, 2019, 2018.

- *International Conference on Big Data Analytics and Knowledge Discovery (DaWaK)*: 2021

- *International Baltic Conference on Digital Business and Intelligent Systems (DB&IS)*: 2022

- *International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM)*: 2020, 2019, 2018, 2017, 2016, 2014, 2012, 2010

- *International Symposium on Temporal Representation and Reasoning (TIME)*: 2021, 2020, 2013, 2008

- *International Conference on Data Management Technologies and Applications (DATA)*: 2014

- *Workshop on Advanced Analytics and Learning on Temporal Data (AALTD)*: 2022

- *International Conference on Web-Age Information Management (WAIM)*: 2013, 2012, 2010

- *International VLDB Workshop on Ranking in Databases (DBRank)*: 2013

- *International Conference on Electronic Government and the Information Systems Perspective and International Conference on Electronic Democracy (EGOVIS and EDEM)*: 2019, 2015, 2014, 2013, 2012

- *International Conference on Electronic Government and the Information Systems Perspective (EGOVIS)*: 2011, 2010

- *International DEXA Workshop on Recommender Systems meet Databases (RSMEETDB)*: 2013, 2012

- *VLDB-07 PhD Workshop*: 2007

- *International Conference on Knowledge Management in Organisations (KMO)*: 2007

General Chair, PC Chair, Organization Chair

- PC co-chair of the *28th European Conference on Advances in Databases and Information Systems (ADBIS)*, August 28–31, 2024, Bayonne, France.

- Area chair of the technical research program of the *39th IEEE International Conference on Data Engineering (ICDE)*, April 3–7, 2023, Anaheim, California, USA.

- PC co-chair of the *25th International Conference on Big Data Analytics and Knowledge Discovery (DaWaK)*, August 28–30, 2023, Penang, Malaysia.

- Workshop co-chair of the *27th European Conference on Advances in Databases and Information Systems (ADBIS)*, September 4–7, 2023, Barcelona, Spain.

- PC co-chair of the *24th International Conference on Big Data Analytics and Knowledge Discovery (DaWaK)*, August 22–24, 2022, Vienna, Austria.

- Demo co-chair of the *37th IEEE International Conference on Data Engineering (ICDE)*, April 19–22, 2021, Chania, Crete/Greece.

- General co-chair of the *47th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM)*, January 2021, Bozen-Bolzano, Italy.

- PC co-chair of the *26th International Symposium on Temporal Representation and Reasoning (TIME)*, 2019, Malaga, Spain.

- Workshops co-chair of the *23rd European Conference on Advances in Databases and Information Systems (ADBIS)*, September 8–11, 2019, Bled, Slovenia.

- General chair of the *30th International Conference on Scientific and Statistical Database Management (SSDBM)*, July 9–11, 2018, Bozen-Bolzano, Italy.

- Workshops co-chair of the *21st European Conference on Advances in Databases and Information Systems (ADBIS)*, September 24–27, 2017, Nicosia, Cyprus.

- Organization co-chair and PC member of the *26. GI-Workshop "Grundlagen von Datenbanken"*, October 22–24, 2014, Ritten, Italy.

- PC co-chair and organization co-chair of the *3rd eBZ-Workshop on e-Government*, jointly organized by the Free University and the Municipality of Bozen-Bolzano, October 11–12, 2006, Bozen-Bolzano, Italy.

- PC co-chair and organization chair of the International *TED Conference on e-Government – Towards Electronic Democracy: The Challenge Ahead (TCGOV)*, March 2–4, 2005, Bozen-Bolzano, Italy.

- General Chair of the *eMayor Clustering Event on Secure Information Processing in the Public Sector (SIPPS)*, co-located with TCGOV, March 4, 2005, Bozen-Bolzano, Italy.

- PC co-chair and organization co-chair of the *2nd eBZ-Workshop on e-Government*, co-located with TCGOV and jointly organized by the Free University and the Municipality of Bozen-Bolzano, March 3, 2005, Bozen-Bolzano, Italy.

- PC co-chair and organization co-chair of the *1st eBZ-Workshop on e-Government*, jointly organized by the Free University and the Municipality of Bozen-Bolzano, Februar 13–14, 2003, Bozen-Bolzano, Italy.

- PC chair and organization chair of the *Workshop on Corpus-Based Terminology*, European Academy of Bozen-Bolzano, February 26–28, 1998, Bozen-Bolzano, Italy.

- PC co-chair and organization co-chair of the *PhD Workshop at the 8th Austrian Artificial Intelligence Conference (FLAI)*, Linz, Austria, 1993.

Reviewing Activities for Journals and Research Grants

- Journals: TODS, VLDB Journal, TKDE, SIGMOD Record, Information Systems, Information Systems Frontiers, DKE, AICOM, KI Journal, AIM Journal

- Research grant applications for:
    - *European Research Council, ERC Starting Grant*
    - *National Science Foundation, Division of Information & Intelligent Systems*
    - *The Research Council of Norway*
    - *"Deutsche Forschungsgemeinschaft (DFG)"*

Other Academic and Professional Services and Memberships

- Member of the Steering Committee of the European Conference on Advances in Databases and Information Systems: 2020 – now

- Member of the AAQ (Swiss Agency of Accreditation and Quality Assurance) Expert Panel for the institutional accreditation of the "Università della Svizzera italiana" (USI): 2021.

- Member of the Awards Committee of the 33rd International Conference on Scientific and Statistical Database Management (SSDBM), July 6–7, 2021, Tamp, Florida.

- Member of the *assessment committee* for the evaluation of the Bachelor and Master in Computer Science, *Johannes Kepler Universität, Linz*: 2020

- Member of the *assessment committee* for a position of an adjunct associate professor in Computer Science, *Norwegian University of Science and Technology, Trondheim*: 2019

- Panelist in the closing round table at the *10th International Summer School for Community and Local Development in Latin America and the Caribbean*, OECD Trento, July 26, 2019. Topic: The Role of Universities in Supporting Innovation and Local Development.

- Member of the *Jury for the Young Researcher Award* at the European Forum Alpbach: 2019

- Member of the *Expert Panel of the EuregioLab 2019* on the topic "Research in the Euregio": 2019

- ERC Remote Referee for research projects submitted to the H2020 Framework Programme: 2018-2020

- Member of the *Advisory Board of Swiss Innovation Valley* (http://swissinnovationvalley.com/): 2017–now

- Founding member and member of *SIBIM ("Società Scientifica Italiana di Informatica Biomedica", http://www.sibim.it)*: 2016–now

- Member of the *EQANIE (European Quality Assurance Network for Informatics Education) Expert Panel* for the accreditation of the Bachelor Programme in Information Technology for the ASIIN Seal & Euro-Inf Label, Eastern Mediterranean University, Famagusty, North Cyprus: 2016

- Member of the *AQ Austria (Agency for Quality Assurance and Accreditation Austria) Expert Panel* for the accreditation of the Bachelor Programme in "Mechatronik", UMIT – Private University for Health Sciences, Medical Informatics and Technology, Austria: 2016

- Member of the *assessment committee* for assistant professors in Computer Science, *Aalborg University*: 2015

- Member of ACM and IEEE

Services to the Faculty/University and Third Mission

Services to unibz

- *Vice-Rector* for Research: 2018–now

- Representative of unibz in the "Consiglio di Gestione" of the SMACT Competence Center for Industry 4.0, a collaboration between eight universities, two research centers and 29 companies of North-East Italy: 2022–now

- Representative of unibz in the "Consiglio di Sorveglianza" of the SMACT Competence Center for Industry 4.0, a collaboration between eight universities, two research centers and 29 companies of North-East Italy: 2018–2022

- Responsible coordinator on behalf of unibz for the Framework Agreement ("Accordo quadro di collaborazione") between unibz and Municipality of Bozen-Bolzano to foster collaborations in research and education: 2018–now

- Member of the *unibz Studies Committee*: 02/2015–09/2018

- Member of the *Editorial Board of Bozen-Bolzano University Press*: 2012–2023

- Member of the *Quality Committee of unibz ("Presidio di Qualità")*: 2013–2015

- Member of the *Selection Committee for Erasmus+ teaching staff mobility*: 2017/18–now

Services to the Faculty

- *Vice-Dean* for Studies: 2014–2018

- Member of the *Study Committee for the PhD in Computer Science*: 2004–now

- Member of the *Faculty Council of the Faculty of Computer Science*: 2004–now

- *Course Council Director* of the BSc in Computer Science: 2009–2018

- Member of the *Selection Committee for the Admission to the Bachelor in Computer Science*: 2010–2018, 2006–2007

- Member of the *Course Council of the BSc in Applied Computer Science*: 2003–2006

- President of the *"Gruppo di Riesame" for the BSc in Computer Science and Engineering*: 2012–2016

- Member of the *Selection Committee for the Admission to the PhD in Computer Science*: 2004–2006, 2009–2011

- Member of the *Selection Committee for External Teachers and Teaching Assistants*: 2003–2012

- Coordinator of the *EQANIE Accreditation of the Bachelor in Computer Science and Engineering*: 2012

- Coordinator of the *EURO-INF Trial Accreditation of the Bachelor in Applied Computer Science*: 2008

- Member of the *Selection Commission for LLP Erasmus Student Exchange*: 2009

- Member of the *Commission for Exam Recognition and Student Exchange*: 2003–2005

- *Representative of the researcher* in the Faculty Council: 2003–2006

- Co-editor of the *Research Report 2001-2004*

Third Mission Activities

- Representative un unibz in the *Working Group for the Continuous Development of the RIS3 Strategy*, Autonomous Province of Bozen-Bolzano: 2022–now.

- Representative of unibz in the *Sounding Board for the Project Aequitas – Gleichstllungsaktionsplan/Piano d'azione per la parità di genere Südtirol/Alto Adige* of the Autonomous Province of Bozen-Bolzano: 2022–2023.

- Webinar on *Big data & Data Warehousing*, organized by the Unternehmerverband Südtirol, July 27, 2022.

- Organization of a *Pitching Event* in collaboration with the ICT Section of the Unternehmerverband Südtirol, Bozen-Bolzano, November 25, 2021.

- Organization chair of the workshop series *Computer Science Research Meets Business* (two annual workshops) to streghten the collaboration between the Faculty and the local business, Free University of Bozen-Bolzano, Italy: 2013–now.

- Representative of unibz in the network *"Allianz der Lehre und Forschung für eine nachhaltige Entwicklung Südtirols"*: 2021–now.

- Presentation of unibz at the *Know Center Graz* (November 2021)

- Organization of a workshop on *Database Technologies and Tuning*, together with INNOS GmbH, Lienz, Austria, December 3, 2020.

- Presentation on *Business Intelligence and Data Warehousing* at the Workshop on Database Technologies and Tuning, INNOS GmbH, Lienz, Austria, December 3, 2020.

- Presentation on *Data Analytics for SMART Green Region* at the networking event Smart Green Region South Tyrol, organized by IDM Südtirol in collaboration with Camera di Commercio Italiana della Svizzera, Gottlieb Duttweiler Institute, Rüschlikon/Zürich, November 21, 2018

- Lecture on *Shortest Path Routing in Continental Scale Networks*: WFO Meran (May 2015), TFO Brixen (April 2015), TFO Meran (March 2015)

- Lecture on *Business Intelligence and Data Warehousing*: RG Bozen (March 2022), RG Bozen (December 2015), WFO Meran (May 2015), WFO Meran (April 2014)

- Presentation of the *Free University of Bozen-Bolzano*: TFO/RG Meran (January 2023) in occasion of the "Tag der Technik"

- Presentation of the *Bachelor in Computer Science (and Engineering)*: TFO Max Valier Bozen (May 2021), Landesberufsschule Bozen (April 2018), WFO Meran (November 2017), RG/TFO Brixen (April 2015), RG/TFO Meran (March 2015), WFO Meran (May 2015), WFO Meran (April 2014)

- Presentation of the *Faculty and the Bachelor in Computer Science and Engineering* to a group of high-school teachers from Poland during a visit at unibz (September 2016)

- Presentation of the *Bachelor in Computer Science* at the Open Day of unibz: 2010–2018

- Introductory lecture *"Von Bits und Bytes zum grössten gemeinsamen Teiler"* at the Open Day of the unibz: 2004–2007

- Presentation of the *Bachelor in Computer Science* at the Orientation Days of unibz: 2010–2018, 2003–2008

- Presentation of the *Bachelor in Applied Computer Science* at local high schools: ITC Battisi di Bolzano, Liceo scientifico "Albert Einstein" di Merano, ITI di Merano, 2003/04–2004/05

- Lecture *"Über Bits und Bytes und die Mechanisierung des Rechnens"* at the Liceo scientifico and Gewerbeoberschule of Meran, 2005

- Presentation of research results at *LUNA (Long Night of Research)*

    - LUNA 2010: *Computing isochrones in multi-modal schedule-based transport networks*
    Partners: unibz, Municipality of Bozen-Bolzano, CreaForm
    - LUNA 2012: *"FITTS – O-STAR: Routenplanung für touristische Applikationen"*
    - LUNA 2014: *"Giro Challenge Martelltal"*
    Partners: EURAC, unibz, University of Klagenfurt, Amt für raumbezogene und statistische Informatik der Autonomen Provinz Bozen, Viva Latsch GmbH, Bad Kleinkirchheimer Tourismus Marketing GmbH

- Delegate member of the Faculty in the *Technical-Scientific Committee of the HTB Course in Practical Informatics* ("HTB Kurs Praktische Informatik"), Landesberufsschule für Handwerk und Industrie Bozen: 2002–2004, 2005–2008

- Delegate member of the Faculty in the *Technical-Scientific Committee of the HTB Course for Database Developer* ("HTB Kurs Datanbankentickler"), Landesberufsschule für Handwerk und Industrie Bozen: 2004–2005

- Delegate member of the Faculty in the *Technical-Scientific Committee of the HTB Course for Network Technicians* ("HTB Kurs Netzwerktechniker"), Landesberufsschule Brixen: 2003–2008

Bozen, January 24, 2024   Johann Gamper