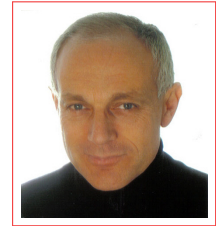


Stefano De Marchi

Curriculum Vitae

Department of Mathematics "Tullio Levi-Civita"
Via Trieste 63, Padova, I-35121
☎ (+39) 3288606226
☎ Office: (+39) 0498271313
☎ Office: (+39) 0498271399
✉ stefano.demarchi@unipd.it
🌐 www.math.unipd.it/~demarchi
Orcid ID: <https://orcid.org/0000-0002-2832-8476>



Personal info *Date of Birth:* December 17, 1962

Place of Birth: Candiana (Padova), Italy

Home Address: Via Albrizzi, 30/a
Candiana (Padova) ITALY I-35020
Tel.: +39 0495349444

Affiliations

Department of Mathematics "Tullio Levi-Civita"
Padova Neurosciences Center
Via Trieste 63, Padova I-35121, www.math.unipd.it.
Via Orus 2b, Padova I-35131, www.pnc.unipd.it.

Education

1991–1994 **Ph.D. in Computational Mathematics**, *Consorzio Nord-Orientale, VI ciclo*, University of Padova, First class admission.
1991 **Master in Applied Mathematics**, *University of Padova*.
1981–1987 **Laurea in Mathematics**, *University of Padova*, First class.

Languages

Italian	Mother tongue	
English	Fluent	<i>Conversation, reading and writing</i>
French	Intermediate	<i>Con conversationally good</i>
German	Basic	<i>Basic words and phrases only</i>

Positions and habilitation

1995–2001 **Assistant Professor in Numerical Analysis**, *Department of Mathematics and Computer Science, University of Udine*.
2001–2005 **Assistant Professor in Numerical Analysis**, *Department of Computer Science, University of Verona*.
2005–2009 **Associate Professor in Numerical Analysis**, *Department of Computer Science, University of Verona*.
2009– **Associate Professor in Numerical Analysis**, *Department of Mathematics "Tullio Levi-Civita", University of Padua*.

March 2017 **Habilitation to Full Professor in Numerical Analysis**, *National Habilitation Committee*, Valid till March 2026.

Scientific membership

- 1990–1996 **Graduate member (GIMA) and then Fellow member (FIMA)**, *The Institute of Mathematics and Its Applications (UK)*.
- 2014–15 **SIMAI**, *member*.
- 1994– **INdAM-GNCS**, *member*.
- 2019– **UMI (Unione Matematica Italiana)**, *member*.
- 2021– **SIAM**, *member*.
- 2021– **EMS**, *member*.

Awards

- Oct.-Dec. 2006 **The paper by L. Bos, M. Caliari, S. De Marchi, M. Vianello and Y. Xu**, “*Bivariate Lagrange interpolation at the Padua points: the generating curve approach*” has been classified in the *TOP 25 Hottest Articles of J. Approx. Theory*, Oct.-Dec. 2006.
- 2013 **The paper by L. Bos, S. De Marchi, K. Hormann and J. Sidon**, “*Bounding the Lebesgue constant of Berrut’s rational interpolant at general nodes*”, has been classified as the *most cited of J. Approx. Theory*, 2013.
- Oct 2019 **Mural for 100th anniversary of the Polish Mathematical Society at the Jagiellonian University**, *In the mural are painted the Approximate Fekete and Discrete Leja Points for polynomial interpolation of degree 6 on a 270 degree circular sector, computed by the methods developed by the CAA Research group, of which I am one of the two coordinators.*

Coordination of Scientific Groups/Networks

- 2005–present **Coordinator of the “CAA Research Group” (Constructive Approximation and Applications)**, *between the Universities of Verona and Padua. Presently, the group consists of 14 researchers. In 15 years the members has published about 200 papers, organized 4 international Workshops and 7 Research Weeks getting supports from: INdAM-GNCS, University of Padova, University of Verona, Department of Mathematics (UNIPD), Department of Computer Science (UNIVR), Department of Mathematics (UNITO).*, <https://www.math.unipd.it/~marcov/CAA.html>.
- 2018–22 **Coordinator of the “Italian Network on Approximation” (RITA)**, *The network group together more than 70 researchers from various Italian Universities*, <https://sites.google.com/view/ritanetworkapp/coordinators-webmasters?authuser=0>.
- 2020–23 **Responsible of the Italian Mathematical Union (UMI) Thematic Group on “Approximation Theory and Applications (A.T.A.)”**, *The group presently consists of about 75 researchers from various Italian Universities*, See <http://www.umi-taa.dmi.unipg.it/page6.html>.

Scholarships and Fellowships

- 1990–91 **IBM of Italy, Scholarship**, *University of Padova*.

- Jun-Dec 1991 **ERASMUS Scholarship**, *Polytechnic (now University) of Sunderland (England)*.
- 1994 **CNR of Italy scholarship**, *project "Sistema Lagunare Veneziano"*.
- 1995 **Post Doc fellowship granted for 2 years**, *Stopped in December 1995*.
- Oct 1998 **CNR of Italy, fellowship within the program "Short-term mobility"**, (*see below*).
- Jun 1999 **CNR of Italy, fellowship within the program "Short-term mobility"**, (*see below*).
- Oct 1999 **DAAD (Deutscher Akademischer Austauschdienst), fellowship**, "*Studienaufenthalte ausländischer Wissenschaftler*", University of Dortmund.
- 13 Jul- 26 Aug 2019 **Erskine Research Programme: fellowship**, *University of Canterbury (New Zealand)*.

Short research visits

- Department of Mathematics and Statistics, University of Calgary (Canada), October 8-31, 1997 and November 5-12, 1999.
- "Fachbereich Mathematik, Universität Dortmund (Germany)", October 2-23, 1998 (within the program Short term mobility year 1998) and May 31 - June 23, 1999 (within the program Short term mobility year 1999).
- "Fachbereich Mathematik, Universität Giessen (Germany)", November 29 - December 19, 1999 within the DAAD program "Student
- Numerical Analysis chair, Universität Göttingen (Germany)", June 29 - July 10, 2001 and August 23-30, 2001, October 1-15, 2006.
- Department of Mathematics, University of Auckland (New Zealand), February 15-20, 2004.
- Department of Applied Mathematics, University of Zaragoza (Spain), December 9-12, 2008.
- Department of Mathematics, University of Oslo (Norway), April 1-4, 2009 and September 24-29, 2010.
- Department of Mathematics, University of Hamburg (Germany), May 23-28, 2010; January 21-24, 2011 and September 19-23, 2014
- Department of Mathematics, University of Antwerp (Belgium), October 12-22, 2013.
- Department of Statistics, University of Valparaiso (Chile), Feb 10-15, 2013.
- Department of Mathematics, Mechanics and Computer Science, University of Warsaw (Poland), March 31- April 4, 2014.
- Gipsa-Lab, UMR 5216 CNRS, Grenoble, December 4-8, 2016.
- "Fachbereich Mathematik, Universität Giessen (Germany)", June 11 - June 15, 2017.
- Department of Scientific Computing, University of Uppsala (Sweden), June 16 - June 18, 2017.
- Department of Mathematics, University of Uppsala (Sweden), September 20-27, 2018.
- Istitute of Mathematics, Department of Approximation Theory, Jagiellonian University, Nov. 4-10, 2018.
- Erwin Schrödinger Institute, Vienna, Aug. 25-30, 2019
- Istitute of Mathematics, Department of Approximation Theory, Jagiellonian University, Oct. 7-19, 2019.

Projects coordination/partecipation

International programs

- CRUI-Vigonil 2001 between the universities Udine and Göttingen: Italian local coordinator, granted with 5Milions of lire.
- CRUI-Vigonil 2002 between the universities Verona and Göttingen: Italian local coordinator, granted with 5K euros.

- NATO Outreach fellowship (6 months) 2002: Italian scientific director. Granted with 6K euros.
- Bilateral agreemt CNR-DFG between the Universities of Verona and Göttingen (2001 and 2005), granted with 2.5K euros per year.
- CooperInt of the University of Verona for visiting professors (2008): local coordinator, granted with 2.5K euros.
- Erskine Programme of the University of Canterbury - New Zealand (2018): granted for 6 weeks visit (about 10K euros).
- Initiatives for International Collaborations, University of Padova (2019): granted for a research visit (1.5K euros)

National and local programs

- PRIN 1998, "Soluzione numerica di problemi stazionari e di evoluzione mediante metodi agli elementi finiti nello spazio-tempo", PI Colli Franzone Piero (UniPV): member of the UniPD section.
- PRIN 2000, "Soluzione numerica di problemi stazionari e di evoluzione lineari e non-lineari mediante metodi agli elementi finiti nello spazio-tempo", PI Verdi Claudio (UniMI): member of the UniPD section.
- PRIN 2003, "Generazione interattiva di suoni prodotti da fenomeni ecologicamente rilevanti", PI Giovanni De Poli (UniPD): member of the UniVR section.
- Scientific coordinator for "Visiting Professor program" of the INdAM-GNCS: in 2005 and 2006 prof. L. Bos (Calgary), in 2007 prof. A. Iske (Hamburg), in 2008 prof. J-P Calvi (Toulouse).
- Scientific coordinator of a research contract with Riello Burners S.p.A.: Flame stability using mathematical models from the bifurcation theory: Mar.-Nov. 2006.
- Scientific coordinator of a research contract with Sinapsi Srl: Simulation of network of physical systems: May 2009-May 2011. Amount 20K euros.
- Scientific coordinator of the University of Padova biennial project 2013-14: "Multivariate Approximation with application to image reconstruction" Amount: 29K euros.
- Scientific coordinator of ex 60% funds of the Departement of Mathematics 2012: 1.1K euros.
- Scientific coordinator of ex 60% funds of the Departement of Mathematics 2013: 3.2K euros.
- Scientific coordinator of ex 60% funds of the Departement of Mathematics 2014: 1.6K euros.
- Scientific coordinator of ex 60% funds of the Departement of Mathematics 2015: 1.8K euros.
- Scientific coordinator of DOR funds of the Departement of Mathematics 2016: 3.2K euros.
- Scientific coordinator "Visiting Scientist Program" of the University of Padova for the following researchers
 1. Prof. Emilio Porcu, University "Federico Santa Maria" of Valparaiso (Chile): 2013 (3.5K euros for 1 months)
 2. Prof. Edward B. Saff, Vanderbilt University (Nashville - TN): 2015 (5.5K euros for 1 months)
 3. Prof. Andras Króo, Hungarian Academy of Sciences (Budapest - H): 2017 (4K euros for 1 months).
 4. Prof. Holger Wendland, University of Bayreuth (Bayreuth - D): 2017 (3K euros for 1 months).
 5. Prof. Andras Króo, Hungarian Academy of Sciences (Budapest - H): 2019 (2.3K euros for 1 months).
- Scientific coordinator for a "Visiting professor" of the Department of Mathematics for Prof. Andras Króo, Hungarian Academy of Sciences (Budapest - H): 2017 (14K euros for 3 months).
- Travel grants from the "Gruppo Nazionale di Calcolo Scientifico" for attending SIAM meetings in USA in 2014 and 2016 (total 2.4K euros).
- Scientific coordinator of the the "Assegno di ricerca" BIRD 2017: Radial basis functions approximations: stability issues and applications, University of Padova (23.6K euros).
- Participant to the research project, "Approximation and Discretization Methods for PDEs on Manifolds for Environmental Modeling" of the University of Padova (prof. Mario Putti, 20K eurors for 2 years).
- PI of the National GNCS-INdAM 2017 project: "Approssimazione Multivariata: teoria e applicazioni" (7.8K eurors).
- Scientific coordinator of DOR funds of the Department of Mathematics 2016-2018 (16.7K euros).
- Participant to the H2020 GEOEssential project "Essential Variables workflows for resource efficiency and environmental management", PI prof. M. Putti, funded with 150K euros.

- Scientific coordinator of the "Assegno di ricerca" BIRD 2018 Approximation by radial basis functions: partition of unity methods, applications to the solution of PDEs and medical imaging, University of Padova (23.6K euros).
- PI of the University of Padova biennial 2019-20 project "NATIRESCO: Nonstandard multivariate Approximation Techniques in medical Imaging, RE mote geospatial Sensing and Computational Optics" (17.5K euros).
- Scientific coordinator for the "Visiting Scientist" support for 1 month position, INdAM-GNCS 2019 (1.5K euros)
- Scientific coordinator of biennial "Assegno di ricerca" 2019-2020 issued by the Padova Neuroscience Center. Title: *A computational tool for neurodegenerative stratification using PET/MR* (55.0K euros).
- Scientific coordinator of one year "Assegno di ricerca" 2020-2021 within the project "Artificial Intelligence for the analysis of solar Flares data (AI-FLARES) - CUP F86C18000190005" Title: *Computational methods for the analysis of solar flares data* (39.1K Euros)
- Representer for the Department of Mathematics into the project proposal WCRI UHF-7T (7Tesla MR) (project amount 12Bilions, Department share, 25K euros)
- PI for the Padova Unit, *PRIN2020*, project title "Near Optimal Fitting and Reconstruction of Multivariate Data with Applications" (Unit budget 141K euros).

Academic and scientific services

1. Assistant professors representer at the "Laurea" in Matematics degree committee: University of Udine, from 1996 to 2000.
2. Assistant professors representer at the Faculty of Sciences committee: University of Udine, from 1997 to 2000.
3. Committee for computational resources: Dept. of Mathematics and Computer Science: University of Udine, from 1998 to 2001.
4. Assistant professors representer at the Faculty of Sciences committee: University of Verona, from 11/2001 to 30/9/2005.
5. Secretary of the degree committee for the "Laurea" in Applied Matematics: University of Verona, from 2008 to 30/9/2009.
6. Vice-president of the "Laurea" in Applied Matematics degree committee: University of Verona, from 2008 to 30/9/2009.
7. President of the Bulletin committee at the Faculty of Statistics: University of Padua, from 2011 to 2012.
8. Member of the "Commissione Valutazione", Department of Mathematics, University of Padua, 2012-2014.
9. Department coordinator of the Numerical Laboratory (NumLab): Department of Mathematics, University of Padua, from 2010 to 2012.
10. Member of the "Commissione Scientifica di Area", Department of Mathematics, University of Padua, from 2013 to 2017.
11. Member of the Scientific committee for Junior grants: Department of Mathematics, University of Padua, year 2013.
12. Member of the doctorate board of the PhD program in "Medicine of development and sanitary and programming sciences" : Department of Medicine, University of Padova, since 2013.
13. Member of the "Giunta" of the Department of Mathematics, University of Padova, 2014-2018.
14. Member of the "Commissione Valutazione", of the Department of Mathematics, University of Padova, 2018-
15. Member of the Ph.D. advisory committee for the candidate, Michele Antonelli, at the Department of Mathematics, University of Padova, 19 April 2015.
16. Member of the Ph.D. advisory committee for the candidate, Emma Perracchione, at the Department of Mathematics, University of Torino, 24 March 2017.

17. Member of the Ph.D. advisory committee for the candidate, Hanli Quiao, at the Department of Mathematics, University of Torino, 24 March 2017.
18. Member of the committee for 1 "Assegno di Ricerca" at the Section of Mathematics, University of Camerino, 10 May 2017.
19. President of the Ph.D. advisory committee for the candidate Ahmed Arafat Hassan Mohammed at the Department of Mathematics, University Jaume I, Castellòn (SP), 29 May 2017.
20. Member of the Ph.D. advisory committee for the candidate Matteo Briani at the Department of Informatics, University of Antwerp (CH), December 21, 2017.
21. President of the hiring committee for a position of "Ricercatore RTDa" on Numerical Analysis, Department of Medicine, University of Padova, Sept.-Oct. 2017.
22. Member of the committee for 1 "Assegno di Ricerca" at the Department of Mathematics, University of Padova, Feb. 2018.
23. Member of the Ph.D. advisory committee for the candidate Azza Alghamdi at the Department of Mathematics, University of Uppsala (S), 21 Sept. 2018.
24. Member of the Ph.D. advisory committee for the candidate Emiliano Cirillo at the Department of Informatics, University of Lugano (CH), 1 March 2019.
25. President of the hiring committee for a position of "Ricercatore RTDb" on Numerical Analysis, Department of Mathematics, University of Padova, Oct.-Dec. 2018.
26. Member of the committee for 1 "Assegno di Ricerca" at the Department of Mathematics, University of Padova, June. 2018.
27. Member of the committee for 1 "Assegno di Ricerca" at the Department of Mathematics, University of Padova, Feb. 2019.
28. Member of the hiring committee for a position of "Ricercatore RTDa" on Numerical Analysis, Department of Mathematics, University of Napoli "Federico II", May 2019.
29. Member of the Ph.D. advisory committee for the candidate Giacomo Elefante at the Department of Mathematics, University of Fribourg (CH), October 2020.
30. Member of the "Aula didattica Taliercio" committee, Lab with 200 desktop computers, from 2019.
31. Member of the Ph.D. selection committee for the School in Mathematical Sciences, June-August 2020.
32. President of the committee for 1 "Assegno di Ricerca" at the Department of Mathematics, University of Padova, 22 Sept 2020.

Partecipation to PhD boards

1. PhD in "Informatica", University of Verona: courses nr, 23 and 24 (2 years)
2. PhD in "Medicina dello sviluppo e scienze della programmazione sanitaria", University of Padova: courses nr. 29 - 36 (7 years)
3. PhD in "Scienze Matematiche", University of Padova, from course 37.

Teaching: Italian and foreign Universities

Note: all courses have been taught as Assistant or Associate Professor, otherwise is specified.

○ University of Udine

1. Laboratory of Numerical Analysis: degree in Mathematics, A.Y. 1995-2000.
2. Laboratory (in Fortan 77) of Numerical Calculus: degree in Computer Science, A.Y. 1996-1997
3. Numerical Calculus: " Diploma in Informatica", A.Y. 1999-2001.
4. Approximation Methods: degree in Matematics, A.Y. 1995-1996.

○ University of Verona

1. Contract professor of Approximation Methods: degree in Computer Science, A.Y. 1994-95.
2. Approximation Methods; degree in Computer Science, A.Y. 2001-2004.
3. Computer Graphics: degree in Computer Science, A. Y. 2001-02.

4. Numerical Methods for Differential Equations : degree in Computer Science, A.Y. 2002-03.
 5. Mathematical Analysis II: degree in Computer Science, A.Y. 2003-04.
 6. Approximation Methods: degree in Applied Mathematics, A.Y. 2005-06.
 7. Lab of Numerical Calculus: degree of Computer Science, A.Y. 2004-2006
 8. Numerical Methods for Differential Equations : master degree in Computer Science, A.Y. 2004-05.
 9. Mathematical Analysis I: degree in Applied Mathematics, A.Y. 2005-06.
 10. Numerical Calculus, Numerical Methods for Differential Equations and Approximation Theory: degree in Applied Mathematics, A.Y. 2006-09.
- *University of Padua:*
 1. Laboratory of Numerical Calculus: "Diploma" in Computer Science and degree in Mathematics, A.Y. 2000-01.
 2. Laboratory of Numerical Calculus: degree in Chemistry, A.Y. 2000-2002.
 3. Numerical Analysis: master's degree in Statistics and Astronomy, A.Y. 2008-2011 and 2018-19.
 4. Introduzione al Calcolo Numerico: degree in Astronomy, A.Y. 2019-20.
 5. Numerical Calculus: degree in Computer Science, A.Y. 2010-11 and 2012-13.
 6. Mathematical Analysis I: degree in Statistics, A.Y. 2011-12.
 7. Approximation Theory and Applications: master's degree in Mathematics, from A.Y. 2010-11 to 2017-18.
 8. Numerical Calculus: degree in Mechanical Engineering, from A. Y. 2014-15 to A. Y. 2020-21.
 9. Numerical Methods for Differential Equations: master's degree in Mathematics, from A.Y. 2018-19.
 10. "Informatica di base", School of Medicine of development, University of Padova, 1 CFU, 2018-2019
 11. Matematica di base: degree in Biotechnology, 10CFU, from A.Y. 2021-.
 - *Abroad*
 1. University of Zaragoza (Spain): Lectures on polynomial interpolations: degree in Mathematics, 9-11 Dec. 2008.
 2. University of Hamburg (Germany): Lectures on polynomial interpolations: master's degree in Mathematics, 21-24 Jan. 2011.
 3. Ecole Nationale Supérieure des Travaux Publics, Yaoundé (Cameroon): Numerical Calculus: degree in Civil Engineering (in agreement with University of Padua), March-April 2011 and June 2012.
 4. University of Antwerp (Belgium): Lectures on Radial Basis Functions: master's in Mathematics and Computer Science, 14-21 Oct. 2013.
 5. University of Warsaw (Poland): Lectures on Radial Basis Functions: master's in Mathematics, 2-4 Apr. 2014.
 6. University of Giessen (Germany): Lectures on topics on multivariate polynomial interpolation: PhD and master's students in Mathematics, 11-15 Jun. 2017.
 7. University of Canterbury (New Zealand), Introduction to Complex Analysis, Master's in Mathematics, 16 Jul-26 Aug. 2018.
 - *Other courses: master and Ph.D.*
 1. Approximation with univariate splines: Ph.D. in Computational Mathematics, University of Padua 1997, 1998 and 1999.
 2. Polynomial Fitting: master in Mathematics, University of Udine, aprile 1999.
 3. Some limit problems in Approximation Theory: Ph.D. in Computational Mathematics, University of Padua 2000.
 4. Wavelets: Ph.D. in Computer Science, University of Verona 2002.
 5. Polynomial and analytic blossoming: Ph.D. in Mathematics, University of Padua, Feb-Mar. 2003.
 6. Polynomial Fitting: Ph.D in Computer Science, University of Verona, December 2003.
 7. Numerical methods for CAGD: master in "Mathematical Modelling with application to computational mechanics and images elaboration", April-May 2004.

8. Radial basis functions: theory and applications: Ph.D. in Computational Mathematics, University of Padua 2006.
 9. Multivariate polynomial and non-polynomial approximation: Ph.D. in Computational Mathematics University of Padua, October 2012.
- *Piano Nazionale Lauree Scientifiche and Orientamento*
1. Progetto/Piano Lauree Scientifiche, University of Padova and Liceo Scientifico "A. Einstein" in Piove di Sacco (Pd), from 2005 to 2018.
 2. Orientamento at the liceo "Cornaro": 2020 and 2021.

Scientific coordination of international projects

1. Erasmus programme: coordinator, University of Udine and Giessen (Germany), till 2001.
2. Erasmus programme: coordinator, University of Verona and Dortmund (Germany), till 2009.
3. Erasmus programme: coordinator, University of Verona and Zaragoza (Spain), till 2009.
4. Erasmus programme: coordinator, University of Padova and Hamburg (Germany), since 2010.
5. Erasmus programme: coordinator, University of Padova and Antwerp (Belgium), since 2013.
6. Erasmus programme: coordinator, University of Padova and Göttingen (Germany), since 2015.
7. Erasmus programme: coordinator, University of Padova and Giessen (Germany), since 2016.
8. Bilateral Agreement: coordinator, University of Padova and ATU - Teheran (Iran), since 2017.
9. Bilateral Agreement: coordinator, University of Padova and Kharazmi University - Teheran (Iran), from 2021.

Supervisor/Co-supervisor activity

1. [Degree in Mathematics \(nr. 7\)](#)
 - (a) Radial basis functions approximation for European call option price, candidate: Maddalena Mandarà, University of Verona, A. Y. 2007-08.
 - (b) Meshfree approximation for multi-asset America option problems, candidate: Anna Viero, University of Verona, A. Y. 2007-08.
 - (c) Confronto tra i metodi ART e SIRT per la ricostruzione di immagini tomografiche, candidate: Giulia Nalin, University of Padua, A.Y. 2012-13.
 - (d) Cubatura su punti quasi ottimali estratti da sequenze quasi-Montecarlo, candidate: Cristopher Miotto, University of Padua, A.Y. 2013-14.
 - (e) Polynomial interpolation on $\{2,3\}$ -dimensional lower sets, candidate: Francesco Marchetti, University of Padua, A.Y. 2014-15.
 - (f) Interpolante di Floater-Hormann e sue applicazioni, candidate: Cinzia Bandiziol, University of Padua, A.Y. 2014-15.
 - (g) Lissajous sampling, candidate: Chiara Faccio, University of Padova, A.Y. 2015-16.
2. [Degree in Mechanical Engineering \(nr. 1\)](#)
 - (a) Stationary subdivision schemes for curves and surfaces, candidate: Sante Perosa, University of Padova, A. Y. 2018-19.
3. [Master's degree in Mathematics \(nr. 19\)](#)
 - (a) Trasformata di Gabor e calcolo dell'operatore inverso: teoria e algoritmi, candidate: Marco Zantoni, University of Udine, A. Y. 2001-02.
 - (b) Blossoming polinomiale e analitico, candidate: Consuelo Roveredo, University of Udine, A. Y. 2001-02.
 - (c) Punti di Leja per l'interpolazioni di funzioni, candidate: Francesca Del Favero, University of Udine, A. Y. 2001-02.
 - (d) Approssimazione polinomiale e cubatura su mesh debolmente ammissibili del parallelepipedo, del cilindro e del prisma a base triangolare, candidate: Martina Marchioro, University of Padua, A. Y.

- 2009-10.
- (e) Medical image reconstruction using kernel based methods, candidate: Amos Sironi, University of Padua, A. Y. 2010-11. \leftrightarrow *Now he is Chief Machine Learning Scientist at PROPHESEE, EPFL Lousanne.*
 - (f) A new stable basis for RBF approximation, candidate: Gabriele Santin, University of Padua, A. Y. 2011-12.
 - (g) Radial basis functions networks for ODEs: application to diabetes and insulin therapy models, candidate: Giulia Antinori, University of Padua, A. Y. 2011-12. \leftrightarrow *Now Professor of Computational Mechanics, TUM Munich.*
 - (h) A Scilab radial basis functions toolbox, candidate: Anna Bassi, University of Padua, A. Y. 2011-12.
 - (i) Reconstruction of medical images from Radon data in transmission and emission tomography, candidate: Davide Poggiali, University of Padua, A. Y. 2011-12.
 - (j) A sound model for music signals, candidate: Matteo Briani, University of Padua, A. Y. 2012-13.
 - (k) Kernel-based medical image reconstruction, candidate: Maria Angela Narduzzo, University of Padua, A. Y. 2013-14.
 - (l) Kernel-based medical image reconstruction from Radon data, candidate: Silvia Guglielmo, University of Padua, A. Y. 2013-14. \leftrightarrow *Now Associate Partner presso Alpenite.*
 - (m) Una nuova tecnica di cubatura quasi-Montecarlo su domini 2d e 3d, candidate: Claudia Bittante, University of Padova, A. Y. 2013-2014.
 - (n) A comparison of some RBF interpolation methods: theory and numerics, candidate: Andrea Idda, University of Padova, A.Y. 2014-15.
 - (o) Cubature on manifolds with low discrepancy and minimal energy points, candidate: Giacomo Elefante, University of Padova, A.Y. 2015-16.
 - (p) Spectral filtering for the resolution of the Gibbs phenomenon in MPI applications by Lissajous sampling, candidate: Francesco Marchetti, University of Padova, A.Y. 2015-16.
 - (q) Numerical solution of PDEs on general surfaces by RBFs, candidate: Sara Carlino, University of Padova, A.Y. 2015-16.
 - (r) Adaptive RBF-PUM method for PDEs, candidate: Danilo Stocchino, University of Padova, A.Y. 2017-18.
 - (s) Extension of Floater-Hormann rational interpolation, candidate: Cinzia Bandiziol, University of Padova, A.Y. 2017-18.
 - (t) Variable Scaled (Discontinuous) Kernels, Persistent Diagrams and Applications, Federico Lot, University of Padova, A.Y. 2020-21.
4. [Master's degree in Computer Science \(nr. 1\)](#)
 - (a) Hyperinterpolation at Xu points and interpolation at Padua points in the square: computational aspects, candidate: Roberto Montagna, University of Verona ,A. Y. 2006-7.
 5. [Master's degree in Mathematical Engineering \(nr. 1\)](#)
 - (a) Optimization Matching for High Pressure Compressor: a case study with Radial Basis Functions, candidate: Alessandro Borsari, University of Padova, A. Y. 2018-19.
 6. [Master in Mathematical Modelling with application to computational mechanics and images elaboration.](#)
Andreola Enrico: Punti quasi-ottimali per l'interpolazione con splines poliarmoniche multivariate, A. Y. 2004-05
 7. [Master's degree in Mathematics \(Co-supervisor\)](#)
 - (a) Prezzaggio di opzioni europee multidimensionali: confronti tra approssimazione mediante funzioni radiali di base e simulazione di Montecarlo, Mathematics, candidate: Alessio Cappello, University of Padua, A. Y. 2011-12.
 - (b) Su una tecnica di interpolazione e regressione ed applicazioni, Mathematics, candidate: Mariarosa Mazza, University of Calabria, A.Y. 2011-12. \leftrightarrow *She is now RTDa at the University of Insubria.*
 8. [Master's degree in Financial Mathematics \(Co-supervisor\)](#)

- (a) Meshless methods on pricing catastrophic bonds, candidate: Mahdieh Aminian Shahrokhbabadi, ATU University Teheran (Iran), A. Y. 2017-18.
- (b) Scheming Meshless Methods for Pricing Catastrophe Bonds Under Stochastic Based Models, candidate: Mohammad Karimnejad Esfhani, ATU University Teheran (Iran), A. Y. 2018-19.
- 9. [Ph.D. school of Mathematics \(nr. 1\)](#)
 - (a) Approximation in kernel-based spaces, optimal subspaces and approximation of eigenfunctions, candidate: Gabriele Santin, University of Padova, Ph.D. XXVIII-grant 2012-15. Advisor.
- 10. [Ph.D. school of Medicine of development and sciences of sanitary programming \(nr. 1\)](#)
Francesco Marchetti,
 - (a) Classification in medicine via VSKs and image reconstruction via VSDKs, candidate: Francesco Marchetti, University of Padova, Ph.D. XXXIII-grant 2017-20. Advisor
- 11. [Co-advisor \(nr. 2\)](#)
 - (a) Linear barycentric rational interpolation on two-dimensional starlike domains, candidate: Giacomo Elefante, University of Fribourg (CH). Thesis defence, 15 December 2020.
 - (b) A Novel Approach for Determining Shape Parameter of Radial Basis Functions in Differential Geometry Point of View, candidate: Mohammad Heidari, Kharazmi University (Iran). Thesis defence in 2021.
- 12. [Foreign Ph.D. hosting \(nr. 3\)](#)
 - (a) Issa Kazem, University of Ilorin (Nigeria), 6 months, Sept. 2017- Feb. 18.
 - (b) Domink Wittawar, University of Stuttgart (Germany), 4 months, 20 March- 31 July 2019.
 - (c) Navid Soobakhsh, University of Isfahan (Iran), 6 months, Feb. 1- July 21, 2020.

PhD and Post docs: summary table

PhD Students	5	1. Gabriele Santin (2016) ↔ <i>Researcher at FBK (Trento)</i> 2. Francesco Marchetti (2021) ↔ <i>post-doc University of Padova</i> 3. Mohammad Karimnejad Esfahani (1st year) 4. Giacomo Elefante ↔ <i>post-doc University of Chieti-Pescara</i> 5. Mohammad Heidari
Foreign PhD hosted	3	Issa Kazem, Dominik Wittawar, Navid Soobakhsh
Post docs	4	1. Manolo Venturin (1 year) ↔ <i>Data scientist presso Enginsoft SpA Consiglio Scientifico SIMAI</i> 2. Emma Perracchione (1 year), 3. Davide Poggiali (1+2 years) 4. Francesco Marchetti (1 year)

Conferences/workshops/minisymposia organization

1. IMACS conference, Innovative Methods in Numerical Analysis, Bressanone (Bz), Sept. 1992: member of organizing the committee
2. Approximation of Curves and Surfaces, Florence, 8-9 June 2000: member of the organizing committee
3. First Dolomites Workshop on Constructive Approximation and Applications, Alba di Canazei (Tn), 2-8 Sept. 2006: member of the organizing and scientific committee.
4. Dolomites Research Week on Approximation, DRWA07, Alba di Canazei, 3-7 Sept. 2007: member of the organizing committee

5. Dolomites Research Week on Approximation, DRWA08, Alba di Chttps://sites.google.com/site/italianapproximationnet 8-11 Sept. 2008: member of the organizing committee
6. Second Dolomites Workshop on Constructive Approximation and Applications, Alba di Canazei, 4-9 Sept. 2009: member of the organizing and scientific committee.
7. Dolomites Research Week on Approximation, DRWA10, Alba di Canazei, 6-9 Sept. 2010: member of the organizing committee
8. Dolomites Research Week on Approximation, DRWA11, Alba di Canazei, 5-9 Sept. 2011: member of the organizing committee
9. Third Dolomites Workshop on Constructive Approximation and Applications, Alba di Canazei, 9-14 Sept. 2012: member of the organizing and scientific committee.
10. Dolomites Research Week on Approximation, DRWA13, Alba di Canazei, 9-13 Sept. 2013: member of the organizing committee
11. Multivariate Approximation, Verona, 29-30 Nov. 2013: member of the organizing committee
12. Dolomites Research Week on Approximation, DRWA14, Alba di Canazei, 8-12 Sept. 2014: member of the organizing committee
13. The 2015 International Workshop on Computer Auditing Education, July 9, 2015, Vancouver (Canada): member of the program committee
14. New Trends in Numerical Analysis (NETNA 2015), 18-21 June, 2015, Falerna : member of the scientific committee
15. Dolomites Research Week on Approximation, DRWA15, Alba di Canazei, 4-8 Sept. 2015: member of the organizing committee
16. Fourth Dolomites Workshop on Constructive Approximation and Applications, Alba di Canazei, 8-13 Sept. 2016: member of the organizing and scientific committee.
17. The 2017 International Workshop on Computer Auditing Education, June 19-20, 2017, London (UK): member of the program committee
18. Dolomites Research Week on Approximation, DRWA17, Alba di Canazei, 4-8 Sept. 2017: member of the organizing committee
19. Approssimazione Multivariata: Teoria e Applicazioni, AMTA17, Palermo, 8-10 Dec. 2017: member of the organizing committee
20. Dolomites Research Week on Approximation, DRWA18, Alba di Canazei, 9-14 Sept. 2018: member of the organizing committee
21. UMI-SIMAI-PTM joint meeting, Wroclaw 17-21 Sept. 2017: organizer of the session "Computational Mathematics: Discrepancy and Complexity".
22. Symposium on Constructive Approximation, Carpeneto, 30 Nov-2 Dec. 2018: member of the organizing committee
23. Dolomites Research Week on Approximation, DRWA19, Alba di Canazei, 2-7 Sept. 2019: member of the scientific committee.
24. Multivariate Approximation: Theory and Applications, MATA2020, Perugia, Jan. 16-18, 2020: steering committee.
25. Special Track on "Multivariate Approximation: numerical methods and applications"- IMACS2020 21st IMACS World Congress, Roma, Oct. 6-9, 2020: organizer.
26. Minisymposium on "Approximation Theory and Applications" - 8th European Congress of Mathematics, Portoroz 20-26 June, 2021: organizer.

Conference talks

1. "3-Variate Approximating Splines Applied to Robot Calibration", talk given at the conference Innovative Methods in Numerical Analysis , Bressanone (Italy), September 1992.
2. "Fractal interpolation functions for a class of finite elements", talk given at the conference Curves and Surfaces, Chamonix-Mont-Blanc, France, June 1993.

3. "Interpolazioni ed Approssimazioni su Simplicies", talk given at the Italian National Conference on Numerical Analysis, Montecatini Terme, April 1994.
4. "Can irregular subdivisions preserve convexity? ", talk given at the NATO-ASI School on Approximation Theory, Wavelets and Applications, Acquafredda di Maratea, Italy, May 1994.
5. "Towards an interpolating surface to scattered data", talk given at the conference Fourth SIAM Conference on Geometric Design, Nashville, Tennessee, November 1995.
6. "Punti di Interpolazione Ottimali e Determinanti di Vandermonde Generalizzati", talk given at the conference Calcolo Scientifico e Didattica, Roma, Italy, Feb. 1998.
7. "Limiting Values Under Scaling for Polynomial Interpolation on Spheres and Manifolds", invited talk given at the conference Third Inter. Conference on Multivariate Approximation 1998, Bommerholz, Germany, Sept.-Oct. 1998.
8. "Determinanti di Vandermonde generalizzati e punti d'interpolazione di Fekete", talk given at the XVI Convegno UMI, Napoli, Sept. 1999.
9. "Fekete's Points for Generalized Vandermonde Determinants", talk at the Sixth SIAM Conference on Geometric Design, Albuquerque, Nov. 1999.
10. "LABSUP: a package for C^1 interpolating surfaces of scattered data", talk given at Fifth Int. Conference "Mathematical methods for curves and surfaces", Oslo, 29 June - 4 July 2000.
11. "Limiting Values under Scaling of the Lebesgue function for polynomial interpolation on analytic manifolds", talk at the Forth International Conference on *Functional Analysis and Approximation Theory*, Acquafredda di Maratea, Italy, Sep. 2000.
12. "On computing the factors of generalized Vandermonde determinants", talk at the WSES Int. Conference on Applied and Theoretical Mathematics, Vravrona, Dec. 2000.
13. "Fast evaluation of discrete integral transforms by Chebyshev and Leja polynomial approximation", talk given at the conference Constructive Function Theory, Varna (Bulgaria), 19-23 June 2002.
14. "Some results and applications of Leja sequences", plenary talk at the conference "Teoria Aproksymacji", Kraków 23-29/9/2002.
15. "Sulla ricerca di punti ottimali indipendenti dai dati per interpolazioni con RBF", talk given at Giornate di Studio su funzioni spline e funzioni radiali, Torino 6-7 Feb. 2003.
16. "Numerical experiments on bivariate polynomial interpolaition at new nodal sets", talk given at the conference Splines and Wavelets, S. Petersburg 3-8 July 2003.
17. "Optimal Point Locations for Radial Basis Functions Interpolation", plenary talk at the conference "Teoria Operatorow", Kraków 22-27/9/2003.
18. "Insiemi di nodi quasi-ottimali per interpolazioni su domini bidimensionali", talk given at the conference SIMAI 2004, Venezia, Sept. 2004.
19. "On Xu polynomial interpolation formula in two variables", talk given at the conference Constructive Functions Tech-04, Atlanta (Usa), 7-9 Nov. 2004.
20. "Interpolation points and interpolation formulae on the square", invited session speaker at the Workshop 7 Approximation Theory, at the conference Foundations of Computational Mathematics, Santander (Spain), 7- 9 July 2005.
21. "On optimal interpolation points for radial basis functions interpolaitoon", plenary talk at the conference honoring the 60th birthday of di Robert Schaback, Göttingen, 25-26 Nov. 2005.
22. "Bivariate Lagrange interpolation at the Padua points: computational aspects", talk given at the conference Recent Progress in Splines and Wavelets approximations, Roma 14-16/6/06.
23. "Opening remarks", First Dolomites Workshop on Constructive Approximation and Applications, Alba di Canazei 8/9/2006
24. "Mathematics and wine", invited talk, Italian Sommelier Association, Abano Terme 23/11/06.
25. "Stability bounds for multivariate kernel-based recovery processes", talk given at biennal meeting of the "Gruppo Nazionale di Calcolo Scientifico (GNCS)", Montecatini Terme 6/2/2008.
26. "New cubature and hyperinterpolation on the cube", invited session speaker in the Workshop B2

- "Approximation Theory", Foundations of Computational Mathematics, FoCM 2008, Hong Kong, 16-26 June, 2008.
27. "Hyperinterpolation in the cube", talk given at the Seventh International Conference on Mathematical Methods for Curves and Surfaces, Tønsberg, 26/6- 1/7, 2008.
 28. "Stability and Lebesgue constants in RBF interpolation", plenary talk at the Workshop on Kernel-Based Methods in Numerical Analysis and Statistics 18-20 September, 2008 Göttingen, Germany.
 29. "Opening remarks", Second Dolomites Workshop on Constructive Approximation and Applications, Alba di Canazei 4 September 2009.
 30. "Matching food and wine and (some) mathematics", talk at Second Dolomites Workshop on Constructive Approximation and Applications, Alba di Canazei 6 September 2009.
 31. "Weakly Admissible Meshes and Discrete Extremal Sets ", talk given at the conference Constructive Theory of Functions, Sozopol (Bulgaria), 5 June 2010.
 32. "On the Lebesgue constant of Floater-Hormann's rational interpolant on equispaced points", CMA University of Oslo (Norway), 27 September 2010.
 33. "On the Lebesgue constants of a family of rational interpolants on equispaced and non-equispaced points", NumLab seminar series, Department of Mathematics, Padua, December 22, 2010.
 34. "On Multivariate Newton Interpolation at Discrete Leja Points", invited speaker at the Robert Schaback's 65th birthday honoring conference, Göttingen (D), January 14, 2011.
 35. "3-dimensional Weakly Admissible Meshes", invited session speaker in the Workshop B2 Approximation Theory, Foundations of Computational Mathematics, FoCM 2011, Budapest (H), July 8, 2011.
 36. "3-dimensional Weakly Admissible Meshes: interpolation and cubature", invited session speaker at the Inter. Conference on Multivariate Approximation, Hagen (D), September 27, 2011.
 37. "Medical image reconstruction using kernel based methods", invited session speaker at the SIAM West Session meeting, Honolulu (USA), March 4, 2012.
 38. "Opening remarks", Third Dolomites Workshop on Constructive Approximation and Applications, Alba di Canazei, September 9, 2012.
 39. "On a new orthonormal basis for RBF native spaces", invited session speaker at the SIAM Annual Meeting, San Diego (USA), July 8, 2013.
 40. "Fast Computation of Orthonormal Bases for RBF Native Spaces", invited session speaker at the SIAM-CSE15, Salt Lake City (USA), March 15, 2015.
 41. "Trivariate polynomial approximation on Lissajous curves?: invited session speaker at the symposium on "Mathematical Methods for Magnetic Particle Imaging" at the annual conference of DMV (German Mathematical Society), Sept. 20-25, 2015 - Hamburg (Germany).
 42. "A new quasi-Monte Carlo technique based on nonnegative least squares and approximate Fekete points", talk given at the Information-based complexity, Banach Center Conferences, Bedlewo (Poland), April 30th, 2015.
 43. "Trivariate polynomial approximation on Lissajous curves", invited speaker, Schloss Dagstuhl (Germany), seminar 15251, June 17th, 2015.
 44. "Kernel-based Image Reconstruction from scattered Radon data by (anisotropic) positive definite functions", plenary talk at the conference Kernel-based methods and function approximation, Torino (I), February 5th, 2016.
 45. "Polynomial Approximation on Lissajous Curves on the d-Cube", invited speaker at the International Conference on Multivariate Approximation, Schloss Rauschholzhausen (Germany), 31 March, 2016.
 46. "Polynomial Approximation on Lissajous Curves on the d-Cube", plenary talk at the 5èmes Journées d'Approximation, Lille (F), May 20, 2016.
 47. "On the rescaled method for RBF approximation", invited session speaker, Approximation Theory 15 - San Antonio (TX), 20-24 May 2016.
 48. "Polynomial Approximation on Lissajous Curves on the d-Cube", talk given at the International Workshop on Mathematical Imaging and emerging Modalities, Osnabrück (D), June 28th, 2016.

49. "Integration on manifolds by mapped low-discrepancy points and greedy minimal k_s -energy points", talk given at the Workshop IBC on the 70th anniversary of Henryk Woźniakowski - Bedlewo (Poland), August 28 - September 2, 2016.
50. "Opening remarks", 4th Dolomites Workshop on Constructive Approximation and Applications , Alba di Canazei (I), Sept 20, 2016.
51. "On the rescaled method for RBF approximation", invited speaker at the Workshop Multivariate Approximation and Interpolation with Applications (MAIA) - Luminy (France), September 19-23, 2016.
52. "Lissajous sampling and adaptive spectral filtering for the reduction of the Gibbs phenomenon in Magnetic Particle Imaging", invited speaker at the Workshop 2nd IM-Workshop on "Applied Approximation, Signals and Images", Bernried, February 27-March 3, 2017.
53. "Fast and stable rational RBF-based Partition of Unity interpolation", SMART 2017, Gaeta (Latina) Italy, September 17 - 21, 2017.
54. "Topics on RBF approximation", AMTA 17, Palermo 8-10 Dec. 2017.
55. "New developments in rational RBF-based approximation", invited speaker at the biannual Meeting of the GNCS, Montecatini (Pistoia) Italy, February 14, 2018.
56. "Adaptive filtering in Magnetic Particle Imaging via Lissajous sampling", session speaker, SIAM-IM18, Bologna 5 June, 2018.
57. "Analysis of a new class of rational RBF expansions", session speaker SIMAI, Roma Italy, July 2, 2018.
58. "Treating geospatial complex data by compression and reduced order methods", UMI-SIMAI-PTM joint meeting, Wroclaw 19 Sept. 2018: session organizer and session speaker.
59. "Polynomial interpolation via mapped bases without resampling", MAIA 2019, Vienna 25-30 Aug. 2019: invited speaker.
60. "Novelty on jumping with variably scaled discontinuous kernel", XXI CONGRESSO UMI, Pavia 3-9 Sept. 2019. Speaker at the Approximation Theory section.
61. "Interpolation and approximation of discontinuities via mapped polynomials and discontinuous kernels", MACMAS 2019 International Conference, Granada 9-11 Sept. 2019: Plenary speaker.
62. "Variably Scaled Discontinuous Kernels (VSDK)", Radial Basis Functions: Theories, Applications and Recent Advances, International Conference, Kharazmi University, Teheran (Iran), 16-19 June 2020: Plenary speaker (Online).
63. "Variably Scaled Discontinuous Kernels (VSDK): basics and applications", Second Symposium on "Machine Learning and Dynamical Systems", Sep. 21 - Oct. 2, 2020, The Fields Institute: Invited Lecture in 3 parts (Online).
64. "A computational tool for neurodegenerative stratification using PET/RM", Brain Day, Sep. 25th, 2020. University of Padova: Invited lecture.

Seminars/Colloquia/guest lectures/tutorials

- I have given seminars/guest lectures/colloquiums on my research topics at the following *Universities* and *research institutions* (the numbers in parentheses indicate how many times if more than 1) Hamburg (D), Antwerp (B, 2), Boise (ID, USA), Bruxelles Frei Univesitet (B), Camerino (I), Chicago IIT (IL, USA), Cosenza (I), Fribourg (CH), Giessen (D), GIPSA-Lab - Grenoble (F), Göttingen (D, 2), Haifa (IL), Krakow JU (PL, 4), Krakow PU (PL), Krakow AGH (PL), Lugano (CH, 2), Munich (D), Helmholtz-Munich (D), Oslo (N, 2), Padova (I), Potenza (I), Renyi Institute Budapest (H), Stuttgart (D), Udine (I), Turin (I), Uppsala (S), Vanderbilt at Nashville (TS, USA), Verona (I), Warsaw (PL), Zaragoza (E).
- Invited tutorial speaker: First and Second Workshop on Meshless Methods and Applications in Finance, ATU Teheran University (Iran), 29-31 Jan. 2018 and 3-5 Feb. 2019.

Slides of some of these talks (the most recent ones) are available here:
<https://www.math.unipd.it/~demarchi/Presentations.html>.

Summary of presentations

Seminars & colloquia	37
Tutorial speaker	2
Conference talks	64
Total	103
Plenary/invited	16
Session/symposium invited	9

Publications

Papers in Refereed Journals

Note: in red are highlighted the 5 most cited papers in SCOPUS. I added the SJR 2019 class of the journal, when available.

1. Doria, A., Angrilli, F. and De Marchi, S., *Inverse kinematics robot calibration by splines functions*. Appl. Math. Modelling, Vol. 17(1993), 492–498. (Q1) for Applied Mathematics
2. De Marchi, S., Morandi Cecchi, M., *The polynomial approximation in the finite element method*. J. Comp. Appl. Math., Vol. 57(1995), 99–114. (Q2) for Applied Mathematics
3. De Marchi, S., Morandi Cecchi, M., *Reference Functional and Characteristic Space for Lagrange and Bernstein Operators*. Approx. Theory & its Appl., Vol. 11(4)(1995), 6–14.
4. De Marchi S., Vianello, M. *Peano's Kernel Theorem for vector-valued functions and some applications*. Numer. Func. Anal. Optim., 17 (1&2) (1996), 57–64. (Q2) for Control and Optimization
5. De Marchi S., Vianello, M. *Peano's Kernel Theorem for Vector-Valued Functions II: A weak version in Normed Spaces*. Numer. Func. Anal. Optim., 18(1&2)(1997), 65–74. (Q2) for Control and Optimization
6. De Marchi, S., *On Computing derivatives for C^1 interpolation schemes: an optimization*. Computing, 60(1)(1998), 29–53. (Q2) for Computational Mathematics
7. Bos, L., De Marchi, S. *Limiting Values Under Scaling of Lebesgue Function for Polynomial Interpolation on Spheres*. J. Approx. Theory, 96(2)(1999), 366–377. (Q2) for Analysis and Applied Mathematics
8. Morandi Cecchi, M., De Marchi, S., Fasoli, D.: *A Package for Representing C^1 interpolating surfaces: Application to the Lagoon of Venice's bed*, Numer. Algorithms, 20(2-3) (1999), 197–215. (Q1) for Applied Mathematics
9. Bos, L., De Marchi, S. *Fekete points for bivariate polynomials restricted to $y = x^m$* . East J. Approx., 5(1)(2000), 1–12.
10. De Marchi, S. *Polynomials arising in factoring generalized Vandermonde determinants: an algorithm for computing their coefficients*. Math. Comput. Modelling, 34 (2001), 271–281. (Q2) for Modeling and Simulation
11. De Marchi, S., Vianello, M. *Approximating the approximant: a numerical code for polynomial compression of discrete integral operators*. Numer. Algorithms, 28(1) (2001), 101–116. (Q1) for Applied Mathematics
12. De Marchi, S. *Polynomials arising in factoring generalized Vandermonde determinants II: a condition for monicity*. Appl. Math. Lett., 15(5) (2002), 627–632. (Q1) for Applied Mathematics
13. Ligun, A., Timchenko, S., Schumeiko, A. and De Marchi, S. *An interpolant defined by subdivision: analysis of the error* J. Comput. Appl. Math. 145 (2002), 71–88. (Q2) for Applied Mathematics
14. Bos, L., De Marchi, S. *On the Limit Under Scaling of Polynomial Lagrange Interpolation on Analytic Manifolds*. Supp. Rend. Circolo Matematico di Palermo serie II, n. 68 (2002), 303–314. (Q3) for Mathematics
15. S. De Marchi *On optimal point locations for radial basis interpolation: computational aspects*, Rend. Sem. Mat. Torino, Vol. 61(3), 343–358 (2003). (Q4) for Mathematics
16. De Marchi, S. e Roveredo C. *On blossoming in integer Müntz spaces*, Int. Math. J. Vol. 5(1), 61–66 (2004).

17. De Marchi, S. *On Leja sequences: some results and applications*, Appl. Math. Comput. 152(3), 621–647 (2004). (Q1) for Applied Mathematics
18. S. De Marchi, R. Schaback and H. Wendland *Near-Optimal Data-independent Point Locations for Radial Basis Function Interpolation*, Adv. Comput. Math., Vol.23(3), pp. 317-330 (2005). (Q1) for Applied Mathematics
19. M. Caliari, S. De Marchi and M. Vianello *Bivariate polynomial interpolation on the square at new nodal sets*, Applied Math. Comput. vol. 165/2, pp. 261-274 (2005). (Q1) for Applied Mathematics
20. L. Bos, M. Caliari, S. De Marchi e M. Vianello *A numerical study of the Xu polynomial interpolation formula in two variables*, Computing, vol. 76(3-4), pp. 311-324 (2006). (Q2) for Computational Mathematics
21. L. Bos, M. Caliari, S. De Marchi and M. Vianello *Bivariate interpolation at Xu points: results, extensions and applications*, Elec. Trans. Numer. Anal. (ETNA), vol. 25, pp. 1-16 (2006). (Q2) for Analysis
22. L. Bos, S. De Marchi e M. Vianello *The Lebesgue constant for the Xu interpolation points*, J. Approx. Theory, Vol. 141(2), pp. 134-141 (2006). (Q2) for Analysis
23. S. De Marchi e M. Morandi Cecchi *Polynomials arising in factoring generalized Vandermonde determinants III :computation of their roots*, Neural, Parallel and Sci. Comput., Vol. 14, pp. 25-38 (2006). (Q4) for Applied Mathematics
24. L. Bos, M. Caliari, S. De Marchi, M. Vianello e Y. Xu *Bivariate Lagrange interpolation at Padua points: the generating curve approach*, J. Approx. Theory, Vol. 143(1), pp. 15-25 (2006). (Q2) for Applied Mathematics
25. S. De Marchi e I. Raykov *Parametric method for global optimization in Hilbert Spaces*, J. Optim. Theory Appl. (JOTA), Vol. 130(3), pp. 411-430 (2006). (Q1) for Control and Optimization
26. M. Caliari, S. De Marchi, R. Montagna e M. Vianello *HYPER2D: a numerical code for hyperinterpolation at Xu points on rectangles*, Appl. Math. Comput., Vol. 183(1), pp. 1138-1147 (2006). (Q1) for Applied Mathematics
27. L. Bos, S. De Marchi, M. Vianello *Bivariate Lagrange interpolation at Padua points: the ideal theory approach*, Num. Math. 108(1), pp. 43-57 (2007). (Q1) for Applied Mathematics
28. De Marchi, S., *Mathematics and Wine*. Appl. Math. Comput. 192, pp. 180-190 (2007). (Q1) for Applied Mathematics
29. M. Caliari, S. De Marchi e M. Vianello, *Hyperinterpolation on the square* J. Comput. Appl. Math. 210(1-2) pp 78-83, (2007). (Q2) for Applied Mathematics
30. S. De Marchi, M. Redivo-Zaglia e M. Vianello *Guest-Editor Preface "1st Dolomites Workshop on Constructive Approximation and Applications"* Numer. Algorithms 45 (1-4),pp. 1–9 (2007). (Q1) for Applied Mathematics
31. M. Caliari, S. De Marchi e M. Vianello, *Bivariate Lagrange interpolation at the Padua points: computational aspects*, J. Comput. Appl. Math., Vol. 221, pp. 284-292 (2008). (Q2) for Applied Mathematics
32. L. Bos e S. De Marchi, *Univariate Radial Basis Functions with Compact Support Cardinal Functions*, East J. Approx. 14(1), pp. 69-80 (2008).
33. M. Caliari, S. De Marchi e M. Vianello, *Hyperinterpolation in the cube*, Comput. Math. Appl. 55(11), pp. 2490-2497 (2008). (Q1) for Computational Mathematics
34. M. Caliari, S. De Marchi e M. Vianello, *Algorithm 886: Padua2D Lagrange Interpolation at Padua Points on Bivariate Domains*, ACM Trans. Math. Soft. 35(3) (2008). (Q1) for Applied Mathematics
35. S. De Marchi, M. Vianello and Y. Xu, *New cubature formulae and hyperinterpolation in three variables*, BIT Numerical Mathematics, Vol. 49(1) 2009, 55-73. (Q2) for Applied Mathematics
36. L. Bos, S. De Marchi and S. Waldron: *On the Vandermonde Determinant of Padua-like Points*. Open problem for DRNA (Dolomites Research Notes on Approximation) 2, (2009), pp. 1-14. (Q2) for Applied Mathematics
37. R. Schaback, S. De Marchi, *Nonstandard kernels and their applications*, DRNA (Dolomites Research

- Notes on Approximation), Vol. 2, (2009), 16–43. (Q2) for Applied Mathematics
38. S. De Marchi e R. Schaback: *Stability of Kernel-Based Interpolation*, Adv. Comput. Math., Vol. 32(2), (2010), 155–161. (Q1) for Applied Mathematics
 39. L. Bos, S. De Marchi, A. Sommariva and M. Vianello, *Computing multivariate Fekete and Leja points by numerical linear algebra*, SIAM J. Num. Anal. Vol. 48(5), (2010), 1984–1999. (Q1) for Numerical Analysis
 40. J. M. Carnicer, S. De Marchi, M. Redivo-Zaglia, E Venturino and M. Vianello *Guest-Editor Preface "2nd Dolomites Workshop on Constructive Approximation and Applications"* Numer. Algorithms 55 (2-3) 2010, p. 141–144. (Q1) for Applied Mathematics
 41. M. Caliari, S. De Marchi, A. Sommariva and M. Vianello: *Padua2DM: fast interpolation and cubature at the Padua points in Matlab/Octave*, Numer. Algorithms Vol. 56(1), (2011), 45–60. (Q1) for Applied Mathematics
 42. L. Bos, S. De Marchi, A. Sommariva and M. Vianello: *Weakly Admissible Meshes and Discrete Extremal Sets*, Numer. Math. Theor. Meth. Appl. Vol. 4(1), (2011), 1–12.
 43. L. Bos, S. De Marchi and K. Hormann: *On the Lebesgue constant of Berrut's rational interpolant at equidistant nodes*, J. Comput. Appl. Math. 236 (2011), pp. 504–510. (Q2) for Applied Mathematics
 44. L. Bos and S. De Marchi: *On optimal points for interpolation by univariate exponential functions*, Dolom. Research Notes on Approx. (DRNA), 4 (2011) , pp. 8–12. (Q2) for Applied Mathematics
 45. L. Bos, S. De Marchi, A. Sommariva and M. Vianello: *On Multivariate Newton Interpolation at Discrete Leja Points* , Dolom. Research Notes on Approx. (DRNA), 4 (2011) , pp. 15–20. (Q2) for Applied Mathematics
 46. L. Bos and S. De Marchi: *On the Whittaker–Shannon sampling by means of Berrut's rational interpolant and its extension by Floater and Hormann*, East J. Approx. 17(3) (2011), pp. 267–284.
 47. K. Hormaan, G. Klein and S. De Marchi: *Barycentric rational interpolation at quasi-equidistant nodes*, Dolom. Research Notes on Approx. (DRNA), 5 (2012) , pp. 1–6. (Q2) for Applied Mathematics
 48. S. De Marchi: *A mathematical view of matching food and wine*, Int. Journal of Contemp. Math. Sciences 7:33 (2012), pp. 1639 - 1652.
 49. L. Bos, S. De Marchi, K. Hormann and G. Klein: *On the Lebesgue constant of barycentric rational interpolation at equidistant nodes* , Numer. Math. 121:3 (2012), pp. 461–471. (Q1) for Applied Mathematics
 50. S. De Marchi, M. Marchioro and A. Sommariva: *Polynomial approximation and cubature at approximate Fekete and Leja points of the cylinder*, Appl. Math. Comput. 218:21 (2012), pp. 10617–10629. (Q1) for Applied Mathematics
 51. L. Bos, S. De Marchi, K. Hormann and J. Sidon: *Bounding the Lebesgue constant of Berrut's rational interpolant at general nodes*, J. Approx. Theory 169 (2013), pp. 7–22. (Q2) for Applied Mathematics, Numerical Analysis
 52. S. De Marchi and G. Santin: *A new stable basis for radial basis function interpolation*, J. Comput. Appl. Math. 253 (2013), pp. 1–13. (Q2) for Applied Mathematics
 53. S. De Marchi and M. Vianello: *Polynomial approximation on pyramids, cones and solids of rotation*, Dolomites Res. Notes Approx. 6 (2013), pp. 20–26. (Q2) for Applied Mathematics
 54. S. De Marchi and K. Usevich: *On certain multivariate Vandermonde determinants whose variables separate*, Linear Algebra Appl. 449 (2014), pp. 17–27. (Q2) for Numerical Analysis
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Summary of paper's classification by SJR

Q1	35
Q2	36
Q3	3
Q4	3
Other	9
Total	86

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Summary of publications

Papers in referred journal	86
Paper in proceedings/book chap.	22
Proceedings edited	9
Posters	12
Miscellanea	6
Relevant Tech. Reports	12
Monographs	2
Didactics books	2
Submitted papers	3

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1. Morandi Cecchi, M., De Marchi, S., Fasoli, D.: *LABSUP: A LABORatory for C^1 interpolating SURfaces*. <http://netlib.bell-labs.com/netlib/numeralgo/na17.tgz>.
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 Matlab package for 3-dimensional WAMs.
9. S. De Marchi and G. Elefante: *GMKs* (Matlab)
<http://www.math.unipd.it/~demarchi/software.htm>
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http://www.math.unipd.it/~demarchi/software/FHRI_Matlab_codes/
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<http://www.math.unipd.it/~demarchi/RBF/LectureNotes.pdf>
2. De Marchi, S. *Lectures on multivariate polynomial interpolation*. See the link
<http://www.math.unipd.it/~demarchi/MultInterp/LectureNotesMI.pdf>
3. De Marchi, S. *Appunti di Calcolo Numerico: parte II, Equazioni Differenziali*. See the link
<http://www.math.unipd.it/~demarchi/DispenseED/diaroBookED.pdf>
4. At the link <http://www.math.unipd.it/~demarchi/didattica.html> there are slides and pdf of
 the courses I taught

Activity as editor and referee

- 2008– **Managing editor**, *Dolomites Research Notes on Approximation (DRNA)*,
<http://journals.padovauniversitypress.it/dolomites/>.
 Scimago Q2 for Mathematics, 2019
- 2008– **Editor**, *Journal of Pure and Applied Mathematics: Advances and Applications*,
<http://scientificadvances.co.in/index.php?cmd=journal&j=5>.
- 2012–16 **Editor**, *The Scientific World Journal, mathematical analysis*, <http://www.hindawi.com/journals/tswj/editors/mathematical.analysis/>.

- 2015– **Editor**, book series *MATHEMATICAL AND COMPUTATIONAL BIOLOGY AND NUMERICAL ANALYSIS*, *Biomathematics and numerical analysis book series*, Aracne Ed., Roma.
- 2018– **Editor**, *Science, Technology and Innovation*, E-ISSN: 2544-9125, ICV: 66.96.
- 2019– **Editor**, *Axioms*, ISSN 2075-1680, MDPI Ed.
Scimago Q3 for Analysis, 2019
- 2020– **Editor**, *Journal of Mathematics and Modeling in Finance (JMMF)*, CoF of Iran.
- 2020– **Associate Editor**, *Journal of Approximation Theory (JAT)*, Elsevier.
Scimago Q2 for Analysis, Applied Mathematics, Numerical Analysis and Mathematics 2019
- 2021– **Editor**, *Mathematics*, (ISSN 2227-7390, MDPI, Section Board for 'Mathematics and Computer Science'.
Scimago Q2 for Mathematics 2019
- 2021– **Editor**, *Comm. Appl. Ind. Math.-SIMAI*, (ISSN 2038-0909).
Scimago Q3 for Applied Mathematics 2019
- present **Referee for**, *AMS-Mathematical Reviews*, *Mathematics of Computation*, *Advances in Computational Mathematics*, *Applied Numerical Mathematics*, *Journal of Approximation Theory*, *Numerische Mathematik*, *SIAM Journal of Matrix Analysis and Applications*, *Journal of Computational and Applied Mathematics*, *Proceedings A*, *Royal Mathematical Society*, *London Journal of Complexity*, *Numerical Algorithms*, *BIT Numerical Mathematics*, *Calcolo*, *Journal Mathematics Analysis and Applications*, *Journal of Inequalities and Applications*, *Jean Journal on Approximation*, *Applied Mathematics E-Notes*, *International Mathematical Journal*, *Mediterranean Journal of Mathematics*, *Computer and Mathematics with Applications*, *Computer Aided Geometric Design*, *Simulation Modelling Practice and Theory*, *Journal of Pure and Applied Mathematics: Advances and Applications*, *The Scientific World Journal*, *Ain Shams Engineering Journal*, *Mathematical and Computational Applications*, *Signal Image and Video Processing*, *Jordanian Journal of Computers and Information Technology*, *J. Math. Mod. Finance*, *Algorithms (MDPI)*, *Mathematics (MDPI)*.

Projects and books review

- 2013 **Project FCT Fundação para a Ciência e a Tecnologia (Portugal)**, *Project Grant Schemes*.
- 2014 **SIR proposals**, (*SIR=Scientific Independence of young Researchers*), MUR, Italy.
- 2015 **Reviewer**, "*Kernel-based Approximation Methods using MATLAB*", by G. Fasshauer and M. Mc Court, World Scientific Publishing, Vol. 19.
- 2015 **Project G048815N**, *FWO (Flemish Research Institute)*, as expert of the Mathematical Sciences panel.
- 2019 **Research Grant proposal**, *Council (RGC)*, Hong Kong.
- 2020 **Research Grant proposal**, *DFG*, Germany.
- 2020 **FISR Covid19 proposals**, *MUR*, Italy.
- 2021 **FWF**, *Research Grant proposal*, Austria.

Bibliometrics

Database	number	h-index	cit
MathSciNet	85		492
Scopus	83	16	901
Scholar		21	1784
RGate	131	20	1276
Co-authors (from Scopus)	68		
Erdős Number (EN)	2		

Hobbies

- 2000– **Marathoner**, *I have run more than 50 long race runs*, including New York and Paris marathons, Oslo and Warsaw half-marathons.
- 2004– **Wine's sommelier**, *I wrote also 3 papers on referred Mathematical Journals about Mathematics and wine, algorithms for food and wine matching and history and wine*, I have also done seminars on Math&wine.
- Others **I did mountain climbing and hiking in all continents**, *I am a quite good swimmer too.*

Padova, June 11, 2021

