STEFANO DE MARCHI
Curriculum Vitae

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	**Mothertongue**	
English	**Fluent**	*Conversation, reading a and writing*
French	**Intermediate**	*Conversationally good*
German	**Basic**	*Basic words and phrases only*

Positions and habilitation

Dec. 1995-Oct. 2001 **Assistant Professor in Numerical Analysis**, *Department of Mathematics and Computer Science, University of Udine*.

Nov. 2001-Sept. 2005 **Assistant Professor in Numerical Analysis**, *Department of Computer Science, University of Verona*.

Oct 2005-Sept. 2009 **Associate Professor in Numerical Analysis**, *Department of Computer Science, University of Verona*.

Oct. 2009- **Associate Professor in Numerical Analysis**, *Department of Mathematics "Tullio Levi-Civita", University of Padova*.

March 28, 2017 **Habilitation to Full Professor in Numerical Analysis (5/5)**, *National Habilitation Committee*, Valid till March 28, 2026.

Main research interests

- Multivariate polynomial approximation: stability issues, quasi-optimal interpolation points (*Padua and Lissajous points*), weakly admissible meshes for Approximate Fekete Points and Discrete Leja Sequences.
- Kernel-based approximation: near-optimal interpolation points, p-greedy method, stable bases and meshless approximation of PDEs, Variably Scaled Discontinuos Kernels (VSDK)
- Applications to medical imaging (CT, MRI, fMRI): multimodal medical imaging, reconstruction and analysis,
- Mapped bases ("fake nodes approach") for Runge and Gibbs phenomena.
- Barycentric rational approximation: stability of Floater-Hormann Interpolants (FHI), tensor-product extension, rational FHI.
- Quasi Monte-Carlo compression and applications
- Enjoy Mathematics with Math&wine and Unknown historical pearls.

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)..*

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 for 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 Akademisher Austauschdiens), fellowship**, *"Studien-taufenthalte 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 "Studientaufenthalte ausländischer Wissenschaftler
- 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.
- Institute of Mathematics, Department of Approximation Theory, Jagiellonian University, Nov. 4-10, 2018.
- Erwin Schrödinger Institute, Vienna, Aug. 25-30, 2019
- Institute 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 (Germany): Italian local coordinator, granted with 5K euros.
- CRUI-Vigonil 2002 between the universities Verona and Göttingen (Germany): Italian local coordinator, granted with 5K euros.
- NATO Outreach fellowship (6 months) 2002: Italian scientific director. Granted with 6K euros.
- Bilateral agreement CNR-DFG between the Universities of Verona and Göttingen (2001 and 2005), granted with 2.5K euros per year.
- Program 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 Prof. 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 Prof. Verdi Claudio (UniMI): member of the UniPD section.
- PRIN 2003, "Generazione interattiva di suoni prodotti da fenomeni ecologicamente rilevanti", PI Porf. 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 biennal 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).
- Partecipant of 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).
- Partecipant 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 biennal 2019-20 project "NATIRESCO: Nonstandard multivariate

Approximation Techniques in medical Imaging, REmote 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 biennal "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 Mathematics: University of Verona, from 2008 to 30/9/2009.
6. Vice-president of the "Laurea" in Applied Mathematics degree committee: University of Verona, from 2008 to 30/9/2009.
7. President of the Bulletin committee at the Faculty of Statistics: University of Padova, from 2011 to 2012.
8. Member of the "Commissione Valutazione", Department of Mathematics, University of Padova, 2012-2014.
9. Department coordinator of the Numerical Laboratory (NumLab): Department of Mathematics, University of Padova, from 2010 to 2012.
10. Member of the "Commissione Scientifica di Area", Department of Mathematics, University of Padova, from 2013 to 2017.
11. Member of the Scientific committee for Junior grants: Department of Mathematics, University of Padova, 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.
33. Member of the Ph.D. advisory committee for the candidate Dominik Wittwar at the Department of Mathematics, University of Stuttgart (D), Nov. 2021.

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 Mathematics, 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 Mathematis, 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 Padova*:

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 Superiore des Travaux Publiques, Yaoundé (Cameroon): Numerical Calculus: degree in Civil Engineering (in agreement with University of Padova), 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 Padova 1997, 1998 and 1999.
2. Polynomial Fitting: Master's degree in Mathematics, University of Udine, aprile 1999.
3. Some limit problems in Approximation Theory: Ph.D. in Computational Mathematics, University of Padova 2000.
4. Wavelets: Ph.D. in Computer Science, University of Verona 2002.
5. Polynomial and analytic blossoming: Ph.D. in Mathematics, University of Padova, Feb-Mar. 2003.
6. Polynomial Fitting: Ph.D in Computer Science, University of Verona, December 2003.
7. Numerical methods for CAGD: Master's degree 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

Padova 2006.

9. Multivariate polynomial and non-polynomial approximation: Ph.D. in Computational Mathematics University of Padova, 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 Gïessen (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 Gïessen (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 Padova, A.Y. 2012-13.
   (d) Cubatura su punti quasi ottiamali estratti da sequenze quasi-Montecarlo, candidate: Cristopher Miotto, University of Padova, A.Y. 2013-14.
   (e) Polynomial interpolation on $\{2,3\}$-dimensional lower sets, candidate: Francesco Marchetti, University of Padova, A.Y. 2014-15.
   (f) Interpolante di Floater-Hormann e sue applicazioni, candidate: Cinzia Bandiziol, University of Padova, 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. 21)
   (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 Padova, A. Y. 2009-10.

(e) Medical image reconstruction using kernel based methods, candidate: Amos Sironi, University of Padova, A. Y. 2010-11. ↪ *Now he is Chief Machine Learning Scientist at PROPHESEE, EPFL Lousanne*.
(f) A new stable basis for RBF approximation, candidate: Gabriele Santin, University of Padova, A. Y. 2011-12.
(g) Radial basis functions networks for ODEs: application to diabetes and insulin therapy models, candidate: Giulia Antinori, University of Padova, A. Y. 2011-12.↪ *Now Professor of Computational Mechanics, TUM Munich*.
(h) A Scilab radial basis functions toolbox, candidate: Anna Bassi, University of Padova, A. Y. 2011-12.
(i) Reconstruction of medical images from Radon data in trasmission and emission tomography, candidate: Davide Poggiali, University of Padova, A. Y. 2011-12.
(j) A sound model for music signals, candidate: Matteo Briani, University of Padova, A. Y. 2012-13.
(k) Kernel-based medical image reconstruction, candidate: Maria Angela Narduzzo, University of Padova, A. Y. 2013-14.
(l) Kernel-based medical image reconstruction from Radon data, candidate: Silvia Guglielmo, University of Padova, A. Y. 2013-14. ↪ *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 resoultion 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.
(u) A Least Squares Radial Basis Functions Partition of Unity method for solving the heat equation, Emma Bizzotto, 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 Padova, 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. ↪ *She is now RTDa at the University of Insubria*.

8. Master's degree in Financial Mathematics (Co-supervisor)
   (a) Meshless methods on pricing cathastrofic bonds, candidate: Mahdieh Aminian Shahrokhabadi, ATU University Teheran (Iran), A. Y. 2017-18.
   (b) 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)
    (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 Kazeem, University of Ilorin (Nigeria), 6 months, Sept. 2017- Feb. 18.
    (b) Dominik Wittwar, 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 Postdocs: summary table

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

Conferences/workshops/minisymposia organization

1. IMACS conference, Innovative Methods in Numerical Analysis, Bressanone (Bz), Sept. 1992: member of the 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 Canazei, 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. "Think tank on Scientific Computing and funding opportunities", Camerino 18-19 June, 2021: organizer and member of the scientific commitee.
27. Minisymposium MS-78"Approximation Theory and Applications" - 8th European Congress of Mathematics, Portoroz 20-26 June, 2021: organizer.
28. Fifth Dolomites Workshop on Constructive Approximation and Applications, Online, 6-10 Sept. 2021: member of the organizing and scientific committee.

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 Simplices", 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, Tennesee, 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 Fourth 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 interpolation 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 interpolation", plenary talk at the conference "Radial Basis Functions and Beyond: From Meshless Methods to Kernel Learning" 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. “Mathematics and wine", invited talk, Italian Sommelier Association, Abano Terme 23/11/06.
24. “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.
25. “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.
26. ”Hyperinterpolation in the cube”, talk given at the Seventh International Conference on Mathematical Methods for Curves and Surfaces, Tønsberg, 26/6- 1/7, 2008.
27. ”Stability and Lebsgue constants in RBF interpolation”, plenary talk at the Workshop on "Positive Definite Functions in Numerical Analysis and Statistics", 18-20 September, 2008 Göttingen, Germany.
28. “Matching food and wine and (some) mathematics”, talk at Second Dolomites Workshop on Constructive Approximation and Applications, Alba di Canazei 6 September 2009.
29. “Weakly Admissible Meshes and Discrete Extremal Sets ”, talk given at the conference Constructive Theory of Functions, Sozopol (Bulgaria), 5 June 2010.
30. “On the Lebesgue constant of Floater-Hormann’s rational interpolant on equispaced points”, CMA University of Oslo (Norway), 27 September 2010.
31. “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.
32. “On Multivariate Newton Interpolation at Discrete Leja Points”, invited speaker Kernel Functions and Meshless Methods, Göttingen (D), January 14, 2011.
33. “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.
34. “3-dimensional Weakly Admissible Meshes: interpolation and cubature”, invited session speaker at the Inter. Conference on Multivariate Approximation, Hagen (D), September 27, 2011.
35. “Medical image reconstruction using kernel based methods", invited session speaker at the SIAM West Session meeting, Honolulu (USA), March 4, 2012.
36. “Opening remarks”, Third Dolomites Workshop on Constructive Approximation and Applications, Alba di Canazei, September 9, 2012.
37. "On a new orthonormal basis for RBF native spaces", invited session speaker at the SIAM Annual Meeting, San Diego (USA), July 8, 2013.
38. “Fast Computation of Orthonormal Bases for RBF Native Spaces", invited session speaker at the SIAM-CSE15, Salt Lake City (USA), March 15, 2015.
39. “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).
40. “A new quasi-Monte Carlo technique based on nonnegative least squares and approximate Fekete points”, talk given at the Information-based Complexity conference, Banach Center Conferences, Bedlewo (Poland), April 30th, 2015.
41. “Trivariate polynomial approximation on Lissajous curves”, invited speaker, Schloss Dagsthul (Germany), seminar 15251, June 17th, 2015.
42. “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.
43. “Polynomial Approximation on Lissajous Curves on the d-Cube”, invited speaker at the International Conference on Multivariate Approximation, Schloss Rauischholzhausen (Germany), 31 March, 2016.
44. “Polynomial Approximation on Lissajous Curves on the d-Cube”, plenary talk at the 5émes Journées d’Approximation, Lille (F), May 20, 2016.
45. “On the rescaled method for RBF approximation”, invited session speaker, Approximation Theory 15 - San Antonio (TX), 20-24 May 2016.

46. "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.
47. "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.
48. "Opening remarks", 4th Dolomites Workshop on Constructive Approximation and Applications , Alba di Canazei (I), Sept 20, 2016.
49. "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.
50. "Lissajous sampling and adpative 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.
51. "Fast and stable rational RBF-based Partion of Unity interpolation", SMART 2017, Gaeta (Latina) Italy, September 17 - 21, 2017.
52. "Topics on RBF approximation", AMTA 17, Palermo 8-10 Dec. 2017.
53. "New developments in rational RBF-based approximation", invited speaker at the biannual Meeting of the GNCS, Montecatini (Pistoia) Italy, February 14, 2018.
54. "Adaptive filtering in Magnetic Particle Imaging via Lissajous sampling", session speaker, SIAM-IM18, Bologna 5 June, 2018.
55. "Analysis of a new class of rational RBF expansions", session speaker SIMAI, Roma Italy, July 2, 2018.
56. "Treating geospatial complex data by compression and reduced order methods", UMI-SIMAI-PTM joint meeting, Wroclaw 19 Sept. 2018: session organizer and session speaker.
57. "Polynomial interpolation via mapped bases without resampling", MAIA 2019, Vienna 25-30 Aug. 2019: invited speaker.
58. "Novelty on jumping with variably scaled discontinuous kernel", XXI CONGRESSO UMI, Pavia 3-9 Sept. 2019. Speaker at the Approximation Theory section.
59. "Interpolation and approximation of discontinuities via mapped polynomials and discontinous kernels", MACMAS 2019 International Conference, Granada 9-11 Sept. 2019: Plenary speaker.
60. "Variably Scaled Discontinous Kernels (VSDK)", Radial Basis Functions: Theories, Applications and Recent Advances, International Conference, Kharazmi University, Teheran (Iran), 16-19 June 2020: Plenary speaker (Online).
61. "Variably Scaled Discontinous 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).
62. "A computational tool for neurodegenerative stratification using PET/RM", Brain Day, Sep. 25th, 2020. University of Padova: Invited lecture.
63. "Variably Scaled Discontinous Kernels and beyond", ICMA2021

Posters presentation

1. *Rational stable RBF-PU interpolation via VSKs*, by S. De Marchi, A. Martinez and E. Perracchione poster presented at the "Dolomites Research Week on Approximation 2017 (DRWA17)", Alba di Canazei (TN- Italy), 4-8 Sept. 2017.
2. *A rescaled method for RBF approximation*, by S. De Marchi, A. Idda and G. Santin poster presented at "4th Dolomites Workshop on Constructive Approximation and Applications (DWCAA16)", Alba di Canazei (TN- Italy), Sept. 2016.
3. *Spectral filtering for the resolution of the Gibbs phenomenon in MPI applications*, by S. De Marchi, W. Erd and F. Marchetti poster presented at "4th Dolomites Workshop on Constructive Approximation and Applications (DWCAA16)", Alba di Canazei (TN- Italy), Sept. 2016.
4. *Integration on manifolds by mapped low-discrepancy points and greedy minimal k_s-energy points*, by S. De Marchi, G. Elefante poster presented at "4th Dolomites Workshop on Constructive Approximation

and Applications (DWCAA16)", Alba di Canazei (TN- Italy), Sept. 2016.

5. *Polynomial Admissible Meshes*, by S. De Marchi, F. Piazzon, A. Sommariva and M. Vianello, poster presented at CMMSE 2015, Cadiz (Spain).
6. WSVD basis for RBF and Krylov subspaces, by S. De Marchi and G. Santin, poster presented at "Dolomites Research Week on Approximation (DRWA13)", Alba di Canazei (TN - Italy), Sept. 2013.
7. *On simultaneous polynomial interpolation and regression II: the degree of regression*, by F. Dell'Accio, S. De Marchi and M. Mazza, poster presented at "Dolomites Research Week on Approximation (DRWA13)", Alba di Canazei (TN - Italy), Sept. 2013.
8. *A New Stable Basis for RBF Approximation*, by S. De Marchi and G. Santin, poster presented at "Dolomites Research Week on Approximation (DRWA12)", Alba di Canazei (TN - Italy), Sept. 2012.
9. *New Tools for Multivariate Polynomial Approximation*, by L. Bos, S. De Marchi, A. Sommariva and M. Vianello, poster presented at ICIAM 2011, Vancouver (Canada).
10. *Polynomial interpolation and algebraic cubature at the Padua points*, by M. Caliari, S. De Marchi, A. Sommariva and M. Vianello poster presented at "2nd Dolomites Workshop on Constructive Approximation and Applications (DWCAA09)", Alba di Canazei (TN- Italy), Sept. 2009.
11. *Near-optimal interpolation and quadrature in two variables: the Padua points*, by M. Caliari, S. De Marchi, A. Sommariva and M. Vianello, poster presented at 5th European Congress of Mathematics, Amsterdam July 14-18, 2008.
12. *Bivariate Lagrange interpolation at the Padua points: computational aspects*, by M. Caliari, S. De Marchi, R. Montagna and M. Vianello, poster presented at the "1st Dolomites Workshop on Constructive Approximation and Applications", Alba di Canazei (TN -Italy), Sept. 2006.

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), Vrije Univesitet Brussels (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), Helmoltz-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 onces) are available here:

Summary of presentations

Seminars & colloquia	37
Tutorial speaker	2
Conference talks	63
Posters	12
Total	114
Plenary/invited	17
Session/symposium invited	9

Publications

Papers in Refereed Journals

Notes: Q1 to Q4 refer to journal ranking quartiles within a subdiscipline using the SJR 2020 citation index. I have added it to the paper, when available. In red are highlighted the 5 most cited papers in SCOPUS.

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. *(Q3) for Computational Mathematics (Q2) for Software*
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. and 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 and M. Vianello *A numerical study of the Xu polynomial interpolation formula in two variables*, Computing, vol. 76(3-4), pp. 311-324 (2006). *(Q3) 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 and 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 and M. Morandi Cecchi *Polynomials arasing 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 and 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 and 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 and 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., *Matematics and Wine*. Appl. Math. Comput. 192, pp. 180-190 (2007). *(Q1) for Applied Mathematics*
29. M. Caliari, S. De Marchi amd M. Vianello, *Hyperinterpolation on the square* J. Comput. Appl. Math. 210(1-2) pp 78-83, (2007). *(Q2) for Applied Mathematics*
30. M. Caliari, S. De Marchi and 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*
31. L. Bos and S. De Marchi, Univariate Radial Basis Functions with Compact Support Cardinal Functions, East J. Approx. 14(1), pp. 69-80 (2008).
32. M. Caliari, S. De Marchi and M. Vianello, Hyperinterpolation in the cube, Comput. Math. Appl. 55(11), pp. 2490-2497 (2008). *(Q1) for Computational Mathematics*
33. M. Caliari, S. De Marchi and M. Vianello, Algorithm 886: Padua2D Lagrange Interpolation at Padua Points on Bivariate Domains, ACM Trans. Math. Soft. 35(3) (2008). *(Q1) for Applied Mathematics and Software*
34. 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. *(Q1) for Applied Mathematics*
35. L. Bos, S. De Marchi and S. Waldron: On the Vandermonde Determinant of Padua-like Points. Open Problems, Dolom. Research Notes on Approx. (DRNA) 2 (2009), pp. 1-15. *(Q2) for Applied Mathematics*
36. R. Schaback, S. De Marchi, Nonstandard kernels and their applications, Dolom. Research Notes on Approx. (DRNA) 2, (2009), 16–43. *(Q2) for Applied Mathematics*
37. S. De Marchi and R. Schaback: *Stability of Kernel-Based Interpolation*, Adv. Comput. Math., Vol. 32(2), (2010), 155–161. *(Q1) for Applied Mathematics*
38. 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*
39. 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*
40. 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. *(Q2) for Computational Mathematics*
41. 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*
42. 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*
43. L. Bos, S. De Marchi, A. Sommariva and M. Vianello: On Multivariate Newton Interpolation at

Discrete Leja Points , Special Isuue "Kernel Functions and Meshless Methods", Dolom. Research Notes on Approx. (DRNA), 4 (2011) , pp. 15-20. *(Q2) for Applied Mathematics*

44. 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.
45. K. Hormann, 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*
46. S. De Marchi: A mathematical view of matching food and wine, Int. Journal of Contemp. Math. Sciences 7:33 (2012), pp. 1639 - 1652.
47. 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*
48. 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*
49. 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*
50. 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*
51. 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*
52. 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*
53. L. Bos, S. De Marchi and N. Levenberg: Fekete Type Points for Ridge Function Interpolation and Hyperbolic Potential Theory, Publ. Math. Inst. (Beograd), Vol. 110 (2014), pp. 41-48. *(Q3) for Mathematics*
54. S. De Marchi, A. Sommariva and M. Vianello: Multivariate Christoffel functions and hyperinterpolation, Dolomites Res. Notes Approx. 7 (2014), pp. 26–33. *(Q2) for Applied Mathematics*
55. S. De Marchi and G. Santin: Fast computation of orthonormal bases for RBF spaces through Krylov spaces methods, BIT Numerical Math. 55(4) (2015), pp. 949–966. *(Q1) for Applied Mathematics*
56. D. Cecchin, D, Poggiali, L. Riccardi, P. Turco, F. Bui and S. De Marchi: Analytical and experimental FWHM of a gamma camera: theoretical and practical issues, PeerJ 3:e722; DOI 10.7717/peerj.722 (2015). *(Q1) for Medicine,*
57. F. Dell'Accio, S. De Marchi, M. Mazza: On the constrained Mock-Chebyshev least squares, J. Comput. Appl. Math. Vol. 280 (2015), pp. 94–109. *(Q2) for Applied Mathematics*
58. André Pierro de Camargo and Stefano De Marchi: A few remarks on "On certain Vandermonde determinants whose variables separate", Dolomites Res. Notes Approx. 8 (2015), pp. 1–11. *(Q2) for Applied Mathematics*
59. S. De Marchi, A. Iske, A. Sironi: Kernel-based Image Reconstruction from Scattered Radon Data, Dolomites Res. Notes on Approx. 9, special issue of the workshop "Kernel-based methods and function approximation", Torino Feb. 5th, 2016, pp. 19–31. *(Q2) for Applied Mathematics*
60. C. Bittante, S. De Marchi and G. Elefante: A new quasi-Monte Carlo technique based on nonnegative least-squares and approximate Fekete points, Numer. Math. TMA, Vol 9(4), pp. 640–663 (2016). *(Q2) for Computational Mathematics*
61. L. Bos, S. De Marchi and M. Vianello: Trivariate polynomial approximation on Lissajous curves, IMA J. Numer. Analysis (2017) 37, pp. 519–541. *(Q1) for Applied Mathematics*
62. R. Cavoretto, S. De Marchi et al.: Partition of unity interpolation using stable kernel-based techniques, Appl. Numer. Math. 116 (2017), pp. 95–107. *(Q1) for Applied Mathematics*
63. L. Bos, S. De Marchi and M. Vianello: Polynomial approximation on Lissajous curves on the d-cube,

Appl. Numer. Math. 116 (2017), pp. 47–56. *(Q1) for Applied Mathematics*

64. S. De Marchi and G. Andreatta: Ricci tensors and wine in Lugo di Romagna and Padova, Italy, Math. Intelligencer 39(3) (2017), pp. 55-60. *(Q2) for History and Philosophy of Science*
65. S. De Marchi and A. Kroó: On multivariate Marcinkiewicz–Zygmund type inequalities , Acta Mathematica Hungarica 151(1) (2018), pp.69–89. *(Q2) for Mathematics*
66. S. De Marchi and G. Elefante: Quasi-Monte Carlo integration on manifolds with mapped low-discrepancy points and greedy minimal Riesz s-energy points, Appl. Numer. Math.,127(5) (2018), pp. 110-124. *(Q1) for Applied Mathematics*
67. S. De Marchi, A. Iske and G. Santin: Image Reconstruction from Scattered Radon Data by Weighted Positive Definite Kernel Functions, Calcolo (2018), 55:2. *(Q1) for Computational Mathematics*
68. S. De Marchi, A. Martinez, E. Perracchione: Fast and stable rational RBF-based Partition of Unity interpolation, J. Comput. Appl. Math. 349 (2019), pp. 331-343. *(Q1) for Applied Mathematics*
69. S. De Marchi, A. Martinez, E. Perracchione and M. Rossini: RBF-based partition of unity method for elliptic PDEs: Adaptivity and stability issues via VSKs, J. Sci. Comput. 79(1)(2019), pp. 321-344. *(Q1) for Computational Mathematics*
70. C. Bandiziol and S. De Marchi: "On the Lebesgue constant of the trigonometric Floater-Hormann rational interpolant at equally spaced nodes", Dolomites Res. Notes Approx. 12 (2019), pp. 51-67. *(Q2) for Applied Mathematics*
71. M. Buhmann, S. De Marchi and E. Perracchione: " Analysis of a new class of rational RBF expansions ", IMA J. Num. Analysis, online `https://doi.org/10.1093/imanum/drz015` (2019). *(Q1) for Applied Mathematics*
72. S. De Marchi and M. Klimek: "In the footsteps of Copernicus: Padova and Uppsala", Irish Math. Soc. Bulletin 83 (2019), pp 19-27.
73. R. Campagna, S. Cuomo, S. De Marchi, E. Perracchione and G. Severino: "A stable meshfree PDE solver for source-type flows in porous media", Appl. Num. Math. 149 (2019), pp. 30-42. *(Q1) for Applied Mathematics*
74. S. De Marchi, F. Marchetti and E. Perracchione: "Jumping with Variably Scaled Discontinuos Kernels (VSDK) ", BIT Numerical Mathematics 60 (2020), pp. 441-463. *(Q2) for Applied Mathematics*
75. S. De Marchi, F. Marchetti, E. Perracchione and D. Poggiali: "Polynomial interpolation via mapped bases without resampling", J. Comput. Applied Math 364 (2020), `https://doi.org/10.1016/j.cam.2019.112347`. *(Q2) for Applied Mathematics*
76. S. De Marchi and H. Wendland: "On the Convergence of the Rescaled Localized Radial Basis Function Method ", Appl. Math. Letters 99 (2020), 105996. `doi:10.1016/j.aml.2019.105996` *(Q1) for Applied Mathematics*
77. J.-P. Berrut, S. De Marchi G. Elefante and F. Marchetti: "Treating the Gibbs phenomenon in barycentric rational interpolation and approximation via the S-Gibbs algorithm", Appl. Math. Letters 103 (2020), 106196. *(Q1) for Applied Mathematics*
78. Stefano De Marchi, Wolfgang Erb, Francesco Marchetti, Emma Perracchione, Milvia Rossini: "Shape-Driven Interpolation with Discontinuous Kernels: Error Analysis, Edge Extraction and Applications in MPI". SIAM J. Sci. Comput. 42(2), (2020) pp. B472–B491. *(Q1) for Applied and Computational Mathematics*
79. Mohammad Karimnejad Esfahani, Abdolsadeh Neisy and Stefano De Marchi: "An RBF approach for oil futures pricing under the jump-diffusion model", J. Math. Modeling 9(1) (2021), pp. 81-92, doi:10.22124/JMM.2020.15948.1396. *(Q4) for Applied Mathematics*
80. S. De Marchi: "Mapped polynomials and discontinous kernels for Runge and Gibbs phenomena", SEMA SIMAI Springer Series, MACMAS19, Chap. 1, pp. 3–41 *(Q3) for Applied Mathematics*
81. S. De Marchi, F.Marchetti, E. Perracchione and D. Poggiali: "Multivariate approximation at fake nodes", Appl. Math. Comput. 391 (2021), doi:10.1016/j.amc.2020.125628. *(Q1) for Applied Mathematics*
82. Vahid Mohammadi, Mehdi Dehghan and Stefano De Marchi: "Numerical simulation of a prostate tumor

growth model by the RBF-FD scheme and a semi-implicit time discretization", J. Comput. Appl. Math. 338 (2021), 113314. doi:10.1016/j.cam.2020.113314. *(Q2) for Applied Mathematics*

83. S. De Marchi, G. Elefante, E. Perracchione and D. Poggiali, "Quadrature at fake nodes", Dolomites Res. Notes on Approx., vol.14 (2021), Special Issue MATA2020, pp.39-45 *(Q2) for Mathematics*
84. D. Poggiali, D. Cecchin, C. Campi and S. De Marchi: "Oversampling errors in multimodal medical imaging are due to the Gibbs effect", Mathematics. 2021; 9(12):1348. https://doi.org/10.3390/math9121348 *(Q2) for Mathematics*
85. S. De Marchi, G. Elefante and F. Marchetti: "On (β, γ)- Chebyshev functions and points of the interval", J. Approx. Theory 271 (2021), 105634. https://doi.org/10.1016/j.jat.2021.105634 *(Q2) for Numerical Analysis*
86. M. Heidari, M. Mohammadi and S. De Marchi: "A shape preserving quasi-interpolation operator based on a new transcendental RBF", Dolom. Res. Notes Approx., Vol. 14 (2021), pp. 56-73 *(Q2) for Mathematics*

Summary of paper's classification by SJR 2020

Q1	33
Q2	38
Q3	3
Q4	3
Other	9
Total	86

Paper in Proceedings/Book Chapters

87. De Marchi S., Vianello, M. and Zanovello, R.: *Splitting Functions and Numerical Analysis of WR-type Methods and Stationary Problems*, in Mathematics of Computation 1943-1993: a half-century of computational mathematics, W. Gautschi (Ed.), AMS series in *Symposia in Applied Mathematics*, (1994), 281–285.
88. De Marchi, S., Morandi Cecchi, M.: *Fractal interpolation functions for a class of finite elements*. In Wavelets, Images and Suface Fitting, edited by P.-J. Laurent, A. Le Méhauté and L. L. Schumaker, A. K. Peters, (1994), 189–196.
89. De Marchi, S., Morandi Cecchi, M.: *Can irregular subdivisions preserve convexity ?* , in Approximation Theory, Wavelets and Applications, S.P. Singh (Ed.), Kluwer, (1995), 325–334.
90. Morandi Cecchi, M., De Marchi, S., Secco, E.: *Un modello Idrodinamico per lo studio della Laguna di Venezia*, Proocedings of the Conference "Sistema Lagunare Veneziano", Istituto Veneto di Lettere, Scienze e Arti, Vol. 2, pp. 815–838, 2000.
91. De Marchi, S.: *On computing the factors of generalized Vandermonde determinants*, in Recent Advances in Applied and Theoretical Mathematics, N. Mastronakis (Ed.), (2000), 140–144.
92. De Marchi, S., Pica A.: *Some applications of data-dependent triangulations*, Convegno SIMAI, Chia Laguna (2002).
93. De Marchi, S. and Vianello M.: *Fast evaluation of discrete integral operators by Chebyshev and Leja polynomial approximation* , "Constructive Function Theory", Varna 2002 (B. Bojanov, Ed.), DARBA, Sofia, pp.347-353 (2003).
94. De Marchi, S.: *Some recent results on Leja sequences*, in Teoria Aproksymacji, Kolo Matematyków Studentów UJ (Ed.), 25-51 (2003).
95. De Marchi, S., *Radial basis functions interpolation and optimal center locations*, in Teoria Operatorów, Kolo Matematyków Studentów UJ (Ed.), 55-67 (2004).
96. De Marchi, S.: *Sets of near-optimal points for interpolation on the square*, in APPLIED AND INDUSTRIAL MATHEMATICS IN ITALY Proceedings of the 7th Conference Venice, Italy 20 - 24 September 2004 Ed. M. Primicerio et al., pp. 45-55 (2005)
97. S. De Marchi: *Geometric greedy and greedy points for RBF interpolation*. Proceedings of the 9th CMMSE (Gijon, Spain, July 2009), Vol. II, p. 381-392 Editors: P. Alonso, S. Oharu, E. Venturino and

B.A. Wade.

98. M. Caliari, S. De Marchi, A. Sommariva and M. Vianello: *A numerical code for fast interpolation and cubature at the Padua points*. Proceedings of the 9th CMMSE (Gijon, Spain, July 2009), Vol. I, p. 218-228 Editors: P. Alonso, S. Oharu, E. Venturino and B. A. Wade.
99. R. Cavoretto, S. De Marchi, A. De Rossi, E. Perracchione and G. Santin: *RBF approximation of large datasets by partition of unity and local stabilization*, Proceedings of CMMSE 2015, Vol. I-II-III-IV, pp. 317–326.
100. S. De Marchi, F. Piazzon, A. Sommariva and M. Vianello: *Polynomial Meshes: Computation and Approximation*, Proceedings of CMMSE 2015, Vol. I-II-III-IV, pp. 414–425.
101. S. De Marchi: *Trivariate polynomial approximation on Lissajous curves*, Dagsthul seminar 15251 report, p. 68, nr. 3.31.
102. R. Cavoretto, S. De Marchi et al.: *Approximating basins of attraction for dynamical systems via stable radial bases*, AIP Conference Proceedings, 1738, 390003 (2016); doi:10.1063/1.4952177
103. S. De Marchi, A. Idda and G. Santin: *A rescaled method for RBF approximation*, Proceedings of "Approximation Theory 15", San Antonio (Texas), Springer Proceedings on Mathematics and Statistics, Vol. 201 (2017), pp. 39–59.
104. S. De Marchi, W. Erb and F. Marchetti: *Lissajous sampling and spectral filtering in MPI applications: the reconstruction algorithm for reducing the Gibbs phenomenon*, proceedings of SampTA2017, pp. 580–584. IEEE Xplore Digital Library DOI: 10.1109/SAMPTA.2017.8024375.
105. L. Cadeddu, A. Cauli and S. De Marchi: *Mathematics and Oenology: exploring an unlikely pairing*, Handbook of the Mathematics of the Arts and Sciences", pp. 1-31, doi:10.1007/978-3-319-70658-0_67-1, Springer 2019. Ed. B. Sriraman.
106. D. Poggiali, D. Cecchin and S. De Marchi: A Kinetic Neural Network Approach for Absolute Quantification and Change Detection in Positron Emission Tomography, In MASCOT 2018 Proceedings - 15th Meeting on Applied Scientific Computing and Tools, Grid generation, Approximation and Visualization. In IMACS SERIES COMPUTATIONAL AND APPLIED MATHEMATICS - ISSN:1098-870X vol. 22 (2019), pp.91-100.
107. F. Marchetti, F. De Martino, M. Shamseddin, S. De Marchi and C. Brisken, "Variably Scaled Kernels Improve Classification of Hormonally-Treated Patient-Derived Xenografts," 2020 IEEE Conference on Evolving and Adaptive Intelligent Systems (EAIS), Bari, Italy, 2020, pp. 1-6, doi: 10.1109/EAIS48028.2020.9122767.
108. S. De Marchi, W. Erb, E. Francomano, F. Marchetti, E. Perracchione and D. Poggiali, "Fake Nodes approximation for Magnetic Particle Imaging," 2020 IEEE 20th Mediterranean Electrotechnical Conference (MELECON), Palermo, Italy, 2020, pp. 434-438, doi: 10.1109/MELECON48756.2020.9140583.

Proceedings edited

109. Proceedings of the First Dolomites Workshop on Constructive Approximation and Applications. Held in Alba di Canazei, September 4–8, 2006. Numer. Algorithms, Vol. 45 (1-4) (2007). Guest editors: Stefano De Marchi; Michela Redivo-Zaglia and Marco Vianello.
110. Proceedings of the Second Dolomites Workshop on Constructive Approximation and Applications. Held in Alba di Canazei, September 4–8, 2009. Numer. Algoriths, Vol. 55 (2-3) (2010). Guest editors: Brezinski, Claude; Carnicer, Jesus M.; De Marchi, Stefano; Iske, Armin; Redivo-Zaglia, Michela; Seatzu, Sebastiano; Venturino, Ezio; Vianello, Marco
111. Proceedings of the Second Dolomites Workshop on Constructive Approximation and Applications. Held in Alba di Canazei, September 4–8, 2009. Calcolo 48 (2011), no. 1, 1–3. Guest editors: Brezinski, Claude; Carnicer, Jesus M.; De Marchi, Stefano; Iske, Armin; Redivo-Zaglia, Michela; Seatzu, Sebastiano; Venturino, Ezio; Vianello, Marco
112. Proceedings of the Workshop *Kernel Functions and Meshless Methods*, held in Goettingen (Germany), 14–15 January 2011 honoring Prof. Robert Schaback in the occasion of his 65th birthday. Dolomites Res. Notes Approx. Vol. 4 (2011), pp. 63. Guest editors: Martin Buhmann, Stefano De Marchi and Gerlind Plonka.

113. Proceedings of the Workshop *Multivariate Approximation 2013*, held in Verona (Italy), 29-30 November 2013 honoring Prof. Len Bos in the occasion of his 60th birthday. Dolomites Res. Notes Approx. Vol. 7 (2014). Guest editors: Marco Caliari, Stefano De Marchi, Norm Levenberg and Marco Vianello.
114. Special Issue on *Ten Years of the Padua Points*, Dolomites Res. Notes Approx. Vol. 8 (2015). Guest editors: Stefano De Marchi and Marco Vianello.
115. Special Issue on *65th birthday of András Kroó*, Dolomites Res. Notes Approx. Vol. 12 (2019). Guest editors: Stefano De Marchi and Marco Vianello.
116. Special Issue on *MATA2020, Perugia 16-18 Jan 2020*, Dolomites Res. Notes Approx. Vol. 14 (2021). Guest editors: Laura Angeloni, Costanza Conti, Stefano De Marchi, Elisa Francomano and Gianluca Vinti .
117. Special Issue honoring Mirosław Baran, Dolomites Res. Notes Approx. Vol. 14 (2021). Guest editors: Leokadia Białas-Cież , Stefano De Marchi, Agnieszka Kowalska and Norm Levenberg.

Archives

118. B. Germansky, *On the systems of Fekete-points of an arc of circumference*, East J. on Approx., 8(4), 511–524, 2002. Translation from Ebrew with Lev Brutman for the session "Archives" of East J. on Approx.

Miscellanea

119. De Marchi, S., *Frattali: Scienza ed Arte Insieme*. *INGENIUM*, Engineering Ingegneria Informatica S.p.A., nr. 6 (1988), 7–16.
120. De Marchi, S., *5 schede software per la Matematica*. *Catalogo Software Sperimentale*, IBM Semea, Direzione Università e Ricerca, Dicembre (1993), 14–18.
121. De Marchi, S., *Matematica e vino*. *Il Sommelier Veneto*, Vol. 1, pp. 10 (2007).
122. De Marchi, S., *Some mathematics in the wine: part I*. *Matematicamente* (Rivista della Mathesis di Verona), n. 113 (2007).
123. De Marchi, S., *Some mathematics in the wine: part II*. *Matematicamente* (Rivista della Mathesis di Verona), n. 118 (2007).

Relevant Technical Reports

124. De Marchi, S., *Frattali: Scienza ed Arte Insieme*. *INGENIUM*, (VI), 1988.
125. De Marchi, S. *A Short Survey of Fractal Interpolation Curves and Surfaces*, Department of Pure and Applied Mathematics, University of Padova, TR 2/1994.
126. De Marchi, S., Morandi Cecchi M. *The Dyadic Iterative Interpolation Method and Some Extensions*, Department of Pure and Applied Mathematics, University of Padova, TR 10/1994.
127. De Marchi, S., Fasoli, D. and Morandi Cecchi, M.. *LABSUP. A LAboratory for Bivariate C^1 SUrfaces and Patches*, Mathematical Background and User's Guide. Department of Pure and Applied Mathematics, University of Padova, TR 9/1996.
128. De Marchi, S. *Generalized Vandermonde determinants, Toeplitz matrices and the Polynomial Division Algorithm*, Universität Dortmund, Ergebnisberichte Angewandte Mathematik, nr. 176, June 1999.
129. De Marchi, S. *Generalized Vandermonde determinants, Toeplitz matrices and Schur functions*. Rapporto di Ricerca nr. 2/2000, of the Department of Computer Science, University of Udine.
130. Stefano De Marchi and Consuelo Roveredo, *On blossoming in integer Müntz spaces: a tutorial*. Rapporto di Ricerca nr. 2/2003 of the Department of Computer Science, University of Verona.
131. Marco Caliari, Stefano De Marchi and Marco Vianello, *A numerical study of Xu polynomial interpolation formula in two variables*. Rapporto di Ricerca nr. 23/2004 of the Department of Computer Science, University of Verona.
132. Simone Zuccher, Marco Caliari, Gianluca Argentini and Stefano De Marchi, *A study on premixed laminar flames*. Rapporto di Ricerca nr. 46/2006 of the Department of Computer Science, University of Verona.
133. Stefano De Marchi and Robert Schaback, *Stability constants for kernel-based interpolation processes*. Rapporto di Ricerca nr. 59/2008 of the Department of Computer Science, University of Verona.

134. E. Perracchione, M. Polato, W. Erb, F. Piazzon, F. Marchetti, F. Aiolli, B. Bayat, A. Botto, S. De Marchi, S. Kollet, C. Montzka, A. Sperduti, M. Vianello, M. Putti, 2019. Modelling and processing services and tools. Geoessential deliverable 1.3, `http://www.geoessential.eu/wp-content/uploads/2019/10/Deliverable1.3_2019Final.pdf`
135. E. Perracchione, M. Polato, W. Erb, F. Piazzon, F. Marchetti, F. Aiolli, B. Bayat, A. Botto, S. De Marchi, S. Kollet, C. Montzka, A. Sperduti, M. Vianello, M. Putti, 2019. Data Fusion guidelines. Geoessential deliverable 1.6, `http://www.geoessential.eu/wp-content/uploads/2019/10/Deliverable1.6_2019Final.pdf`

Submitted

136. S. De Marchi, G. Elefante and F. Marchetti: "Stable discontinuous bases for mapped polynomial interpolation: a fake nodes", submitted to Comput. Appl. Math. (COAM) (March 2021)

Monographs

137. De Marchi, S. *Funzioni Spline Univariate*. Editrice Universitaria *FORUM*, Udine, Second Ed., Dic. 2000, pp. 106 + floppy-disk in Matlab.
138. Stefano De Marchi *Appunti di Calcolo Numerico* con codici in Matlab/Octave. Editrice Esculapio-Bologna, II Ed. 2016, pp. 260, ISBN: 9788874889396.
139. Stefano De Marchi, Maddelena Mandará and Anna Viero, *Meshfree Approximation for Multi-Asset European and American Option Problems*. Editrice Aracne, I Ed. 2012, pp. 92, ISBN: 9788854851511.
140. Stefano De Marchi and Davide Poggiali, *Exercises of Numerical Calculus With Solutions in Matlab/Octave*. Ed. La Dotta - Bologna, I Ed. 2013, pp. 106, ISBN: 9788898648122.

PhD and Master thesis

141. De Marchi, S. *Approssimazioni e Interpolazioni su "Simplices": Caratterizzazioni, Metodi ed Estensioni*. Ph. D. in Matematica Computazionale e Informatica Matematica, VI ciclo. University of Padova, 1994.
142. De Marchi, S. *Approssimazione con Splines Multivariate*, Corso di Specializzazione in Matematica Applicata (Master's thesis), University of Padova, 1991.

Summary of publications

Papers in referred journals	86
Paper in proceedings/book chap.	22
Proceedings edited	9
Miscellanea	6
Relevant Tech. Reports	12
Monographs	2
Didactics books	2
Submitted papers	1

Numerical software

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`
2. De Marchi, S., Vianello M.: *CHEBCOINT: CHEByshev COMpression for INTegral operators* . `ftp://ftp.math.unipd.it/pub/People/vianello/chebcoint.tar` Toolbox in Matlab (see the paper Numer. Algorithms,28(1) (2001),101–116.)
3. M. Caliari, S. De Marchi, R. Montagna and M. Vianello: *XuPad2D*. `http://profs.scienze.univr.it/~caliari/software.htm` Toolbox in Matlab for hyperinterpolation on Xu points, 2006.
4. M. Caliari, S. De Marchi, R. Montagna and M. Vianello *HyperCube*.

http://profs.scienze.univr.it/~caliari/software.htm
Fortran 77 for the hyperinterpolation on the cube, 2006.

5. M. Caliari, S. De Marchi e M. Vianello: *Padua2D*.
   http://profs.scienze.univr.it/~caliari/software.htm
   Fortran 77 code for the interpolation of Padua-like points on rectangles, triangles and ellipses.
6. M. Caliari, S. De Marchi, R. Montagna and M. Vianello: *InterPD*.
   http://profs.scienze.univr.it/~caliari/software.htm
   C code for interpolation at Padua points.
7. S. De Marchi e M. Vianello: *Hyper3*.
   http://www.math.unipd.it/~demarchi/software.html
   Matlab code for hyperinterpolation and cubature on the 3d cube.
8. S. De Marchi and M. Vianello: *3dWAM* (Matlab)
   http://www.math.unipd.it/~demarchi/software.html
   Matlab package for 3-dimensional WAMs.
9. S. De Marchi and G. Elefante: *GMKs* (Matlab)
   http://www.math.unipd.it/~demarchi/software.html
   GMKs: Matlab package for computing integrals on manifolds with low discrepancy and greedy minimal ks points
10. S. De Marchi and C. Bandiziol: *FHRI* (Matlab)
    http://www.math.unipd.it/~demarchi/software/FHRI_Matlab_codes/
    FHRI: Floater-Hormann rational approximation and its applications
11. S. De Marchi, A. Martinez, E. Perracchione : *HVSK-PU*
    http://www.math.unipd.it/~demarchi/software.html
    HVSK-PU: Hybrid Variably Scaled Kernels by Partition of Unity for elliptic PDEs
12. S. De Marchi, F. Marchetti, E. Perracchione, D. Poggiali
    https://github.com/pog87/FakeNodes
    Python code for Fake Nodes interpolation approach

Managing editor/Editor of journals

2008– **Managing editor**, *Dolomites Research Notes on Approximation (DRNA)*, ISSN 2035-6803, http://journals.padovauniversitypress.it/dolomites/. Q2 for Mathematics

2008– **Editor**, *Journal of Pure and Applied Mathematics: Advances and Applications*, ISSN 0974 - 9381, http://scientificadvancespublishers.com/journal_of_pure_and_applied_mathematics_advances_and_applications.html.

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, https://stijournal.pl/resources/html/cms/SCIENTIFICCOUNCIL.

2019– **Editor**, *Axioms*, ISSN 2075-1680, MDPI Ed., Q3 for Analysis.
https://www.mdpi.com/journal/axioms/editors

2020– **Editor**, *Journal of Mathematics and Modeling in Finance (JMMF)*, CoF of Iran, Online ISSN 2783-056X, https://jmmf.atu.ac.ir/journal/editorial.board.

2020– **Associate Editor**, *Journal of Approximation Theory (JAT)*.
ISSN: 0021-9045, https://www.sciencedirect.com/journal/journal-of-approximation-theory/about/editorial-board, Q2 for Analysis, Applied Mathematics, Numerical Analysis and Mathematics

2021– **Editor**, *Mathematics*, (ISSN 2227-7390, MDPI Ed., 'Mathematics and Computer Science Section', https://www.mdpi.com/journal/mathematics/sectioneditors/mathematics_computers_science.
Q2 for Mathematics

2021– **Editor**, *Comm. Appl. Ind. Math.-SIMAI*, ISSN 2038-0909, https://sciendo.com/journal/caim.
Q3 for Applied Mathematics

Referee for the following databases and journals

AMS-Mathematical Reviews, zbMATH, 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, 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, AIMS Mathematics, Mathematical and Computational Applications, Signal Image and Video Processing, Jordanian Journal of Computers and Information Technology, J. Math. Mod. Finance, Algorithms (MDPI), Mathematics (MDPI), Axioms (MDPI)

Projects and books review

2013 **Project FCT Fundaçã̃o 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	86	12	499
Scopus	86	17	938
Scholar		22	1843
RGate	134	20	1334
Co-authors (from Scopus)	71		
Erdös 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 sommelier**, *I also wrote 3 papers on Mathematical Journals about Mathematics and wine, algorithms for food and wine matching and history and wine, plus a chapter on "Handbook of the Mathematics of the Arts and Sciences", Springer, Cham.*, 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.*

I declare that all the above information are true. In faith, Date, September 9, 2021