

CURRICULUM VITAE

STEFANO DE MARCHI

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1 CURRICULUM VITAE

Level of education: Ph.D. (1994), 1994

Level of degree: M.Sc. (1991), 1991

Current address: Dipartimento di Matematica "Giuseppe Galilei"
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 35131 Padova, Italy

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Current research interests: Numerical Analysis, Applied Mathematics

2 EDUCATION AND POSITIONS

Degree (Mathematics)	1987	University of Padua;
M.Sc. (Applied Mathematics)	1991	University of Padua;
Ph.D. (Computational and Applied Math.)	1994	University of Padua.

- Assistant Professor in *Numerical Analysis* - Department of Mathematics and Computer Science, University of Udine, 1995-2001.
- Assistant Professor in *Numerical Analysis* - Department of Computer Science, University of Verona, 2001-2005.
- Associate Professor in *Numerical Analysis* - Department of Computer Science, University of Verona, 2005-2009.
- Associate Professor in *Numerical Analysis* - Department of Pure and Applied Mathematics, University of Padua, 2009-.
- Habilitation to Full Professor in *Numerical Analysis*, March 2017.

3 SCHOLARSHIPS/GRANTS

1. IBM of Italy, Scholarship for 2 years at the University of Padua, 1990-1991.
2. ERASMUS Scholarship for 6 months University of Sunderland (England), 1991.
3. CNR of Italy, Grant within the project “Sistema Lagunare Veneziano”, 1994.
4. Post-Doctorate Grant for 2 years, 1995. stopped in December 1995 when became Assistant Professor.
5. CNR of Italy, Grant within the program “Short-term mobility”, October 1998 and June 1999 (see below).
6. DAAD (Deutscher Akademischer Austauschdienst), Grant within the program “Studienaufenthalte ausländischer Wissenschaftler”, year 1999 (see below).

4 VISITING PROFESSORSHIPS

- Visiting Professor at the Department of Mathematics and Statistics, University of Calgary (Canada), October 8-31, 1997 and November 5-12, 1999.
- Visiting Professor at the “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).
- Visiting Professor at the “Fachbereich Mathematik, Universität Giessen (Germany)”, November 29 - December 19, 1999 within the DAAD program “Student
- Visiting Professor at the Numerical Analysis chair, Universität Göttingen (Germany)”, June 29 - July 10, 2001 and August 23-30, 2001, October 1-15, 2006.
- Visiting at the Department of Mathematics, University of Auckland (New Zealand), February 15-20, 2004.
- Visiting at the Department of Applied Mathematics, University of Zaragoza (Spain), December 9-12, 2008.
- Visiting at the Department of Mathematics, University of Oslo (Norway), April 1-4, 2009 and September 24-29, 2010.
- Visiting at the Department of Mathematics, University of Hamburg (Germany), May 23-28, 2010; January 21-24, 2011 and September 19-23, 2014

- Visiting at the Department of Mathematics, University of Antwerp (Belgium), October 12-22, 2013.
- Visiting at the Department of Statistics, University of Valparaiso (Chile), Feb 10-15, 2013.
- Visiting at the Department of Mathematics, Mechanics and Computer Science, University of Warsaw (Poland), March 31- April 4, 2014.
- Visiting at Gipsa-Lab, UMR 5216 CNRS, Grenoble, December 4-8, 2016.

5 RESEARCH GRANTS

5.1 INTERNATIONAL PROGRAMS

- CRUI-Vigonil 2001 between the universities Udine and Göttingen: Italian local coordinator, granted with 5Millions of lire.
- CRUI-Vigonil 2002 between the universities Verona and Göttingen: Italian local coordinator, granted with 5000 euros.
- **NATO Outreach fellowship** (6 months) 2002: Italian scientific director. Granted with 6000 euros.
- Bilateral agreemt CNR-DFG between the Universities of Verona and Göttingen (2001 and 2005), granted with 2500 euros per year.
- **CooperInt** of the University of Verona for visiting professors (2008): local coordinator, granted with 2500 euros.

5.2 NATIONAL 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.

- “Visiting Professor program” of the Gruppo Nazionale di Calcolo Scientifico: supported by visiting grants in 2005, 2006, 2007 e 2008.
- 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. The grant was 20000 euros.
- Scientific coordinator of the project *Multivariate Approximation with application to image reconstruction* of the University of Padova, 2013-14. Amount: 29000 euros.
- Scientific coordinator of ex 60% funds of the Departement of Mathematics 2012: 1082 euros.
- Scientific coordinator of ex 60% funds of the Departement of Mathematics 2013: 3214 euros.
- Scientific coordinator of ex 60% funds of the Departement of Mathematics 2014: 1555 euros.
- Scientific coordinator of ex 60% funds of the Departement of Mathematics 2015: 1823 euros.
- Scientific coordinator of DOR funds of the Departement of Mathematics 2016: 3231 euros.
- Scientific coordinator for a visiting scientist position of the University of Padova for the following researchers
 1. Prof. Emilio Porcu, University “Federico Santa Maria” of Valparaiso (Chile): 2013 (3500 euros for 1 months)
 2. Prof. Edward B. Saff, Vanderbilt University (Nashville - TN): 2015 (5500 euros for 1 months)
 3. Prof. Andras Króó, Hungarian Academy of Sciences (Budapest - H): 2017 (4000 euros for 1 months).
- Scientific coordinator for a visiting professor position of the Department of Mathematics for Prof. Andras Króó, Hungarian Academy of Sciences (Budapest - H): 2017 (14000 euros for 2 months).
- Coordinator of the “CAA-group” (Constructive Approximation and Applications), between the universities of Verona and Padua. The group has organized 4 workshops and 7 research weeks getting supports from: “Gruppo Nazionale di Calcolo Scientifico”, University of Padova, University of Verona, Department of Mathematics (UNIPD), Department of Computer Science (UNIVR), Department of Mathematics (UNITO).

- I got 1200 euros travel grant from the "Gruppo Nazionale di Calcolo Scientifico" for attending SIAM meetings in USA in 2014 and 2016.
- Scientific coordinator of the research grant *Radial basis functions approximations: stability issues and applications*, for 2017, University of Padova (23593 euros for 1 year).
- I am participating to the research project *Approximation and Discretization Methods for PDEs on Manifolds for Environmental Modeling* of the University of Padova (20000 euros for 2 years).
- Scientific Coordinator of the National GNCS-INdAM 2017 project: *Approssimazione Multivariata: teoria e applicazioni* (7800 euros).

6 ACADEMIC/SCIENTIFIC SERVICES

1. Graduate member (GIMA) and then Fellow member (FIMA) of "The Institute of Mathematics and Its Applications (UK)", 1/1/1990-31/12/1996.
2. Assistant professors representer at the "Laurea" in Mathematics degree committee: University of Udine, from 1996 to 2000.
3. Assistant professors representer at the Faculty of Sciences committee: University of Udine, from 1997 to 2000.
4. Committee for computational resources: Dept. of Mathematics and Computer Science: University of Udine, from 1998 to 2001.
5. Assistant professors representer at the Faculty of Sciences committee: University of Verona, from 11/2001 to 30/9/2005.
6. Secretary of the degree committee for the "Laurea" in Applied Mathematics: University of Verona, from 2008 to 30/9/2009.
7. Vice-president of the "Laurea" in Applied Mathematics degree committee: University of Verona, from 2008 to 30/9/2009.
8. President of the Bulletin committee at the Faculty of Statistics: University of Padua, from 2011 to 2012.
9. Department coordinator of the Numerical Laboratory (NumLab): Department of Mathematics, University of Padua, from 2010 to 2012.
10. Member of the Evaluation committee: Department of Mathematics, University of Padua, since 2012.

11. Member of the Scientific Mathematics Area committee: Department of Mathematics, University of Padua, since 2013.
12. Member of the Scientific committee for Junior grants: Department of Mathematics, University of Padua, year 2013.
13. Doctorate board of the PhD program in "Medicine of development and sanitary and programming sciences" : Department of Medicine, University of Padua, since 2013.
14. Member of the PhD advisory committee for 2 Ph.D. candidates at the Department of Mathematics, University of Torino, March 2017.
15. Member of the PhD advisory committee for 1 Ph.D. candidate at the Department of Mathematics, University of Castellon (SP), June 2017.
16. Member of the PhD advisory committee for 1 Ph.D. candidate at the Department of Informatics, University of Lugano (CH), spring 2018.

7 DIDACTICS

- At the 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.
- At the 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.
- At the University of Padua:
 1. Laboratory *Numerical Calculus*: "Diploma" in Computer Science and degree in Mathematics, A.Y. 2000-01.
 2. Laboratory *Numerical Calculus*: degree in Chemistry, A.Y. 2000-2002.
 3. *Numerical Analysis*: master's degree in Statistics and Astronomy, A.Y. 2008-2011.
 4. *Numerical Calculus*: degree in Computer Science, A.Y. 2010-11 and 2012-13.
 5. *Mathematical Analysis I*: degree in Statistics, A.Y. 2011-12.
 6. *Approximation Theory and Applications*: master's degree in Mathematics, from A.Y. 2010-11.
 7. *Numerical Calculus*: degree in Mechanical Engineering, from A. Y. 2014-15.
 - At the University of Zaragoza (Spain): Lectures on polynomial interpolations: degree in Mathematics, 9-11 Dec. 2008.
 - At the University of Hamburg (Germany): Lectures on polynomial interpolations: master's degree in Mathematics, 21-24 Jan. 2011.
 - At the 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.
 - At the University of Antwerp (Belgium): Lectures on Radial Basis Functions: master's in Mathematics and Computer Science, 14-21 Oct. 2013.
 - At the University of Warsaw (Poland): Lectures on Radial Basis Functions: master's in Mathematics, 2-4 Apr. 2014.
 - Ph.D. and master courses
 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. *Numerical methods for CAGD*: master in *Mathematical Modelling with application to computational mechanics and images elaboration*, April-May 2004.

6. *Radial basis functions: theory and applications*: Ph.D. in Computational Mathematics, University of Padua 2006.
7. *Polynomial Fitting*: Ph.D in Computer Science, University of Verona, December 2003.
8. *Multivariate polynomial and non-polynomial approximation*: Ph.D. in Computational Mathematics University of Padua, October 2012.

8 MORE SERVICES

- *Progetto/Piano Lauree Scientifiche*, University of Padova and Liceo Scientifico "A. Einstein" in Piove di Sacco (Pd), from A.Y. 2005.
- *Erasmus programme*: coordinator, University of Udine and Gissen (Germany).
- *Erasmus programme*: coordinator, University of Verona and Dortmund (Germany).
- *Erasmus programme*: coordinator, University of Verona and Zaragoza (Spain).
- *Erasmus programme*: coordinator, University of Padova and Hamburg (Germany) since 2010.
- *Erasmus programme*: coordinator, University of Padova and Antwerp (Belgium) since 2013.
- *Erasmus programme*: coordinator, University of Padova and Göttingen (Germany) since 2015.
- *Erasmus programme*: coordinator, University of Padova and Gissen (Germany) since 2016.

9 SUPERVISOR/CO-SUPERVISOR OF THESES/DISSERTATIONS

– Degree in Mathematics (nr. 7)

1. *Radial basis functions approximation for European call option price*, candidate: Maddalena Mandarà , University of Verona, A. Y. 2007-08.
2. *Meshfree approximation for multi-asset America option problems*, candidate: Anna Viero, University of Verona, A. Y. 2007-08.
3. *Confronto tra i metodi ART e SIRT per la ricostruzione di immagini tomografiche*, candidate: Giulia Nalin, University of Padua, A.Y. 2012-13.
4. *Cubatura su punti quasi ottimali estratti da sequenze quasi-Montecarlo*, candidate: Christopher Miotto, University of Padua, A.Y. 2013-14.
5. *Polynomial interpolation on $\{2,3\}$ -dimensional lower sets*, candidate: Francesco Marchetti, University of Padua, A.Y. 2014-15.

6. *Interpolante di Floater-Hormann e sue applicazioni*, candidate: Cinzia Bandiziol, University of Padua, A.Y. 2014-15.
 7. *Lissajous sampling*, candidate: Chiara Faccio, University of Padova, A.Y. 2015-16.
- Master’s degree in Mathematics (nr. 17)
1. *Trasformata di Gabor e calcolo dell’operatore inverso: teoria e algoritmi*, candidate: Marco Zantoni, University of Udine, A. Y. 2001-02.
 2. *Blossoming polinomiale e analitico*, candidate: Consuelo Roveredo, University of Udine, A. Y. 2001-02.
 3. *Punti di Leja per l’interpolazioni di funzioni*, candidate: Francesca Del Favero, University of Udine, A. Y. 2001-02.
 4. *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.
 5. *Medical image reconstruction using kernel based methods*, candidate: Amos Sironi, University of Padua, A. Y. 2010-11.
 6. *A new stable basis for RBF approximation*, candidate: Gabriele Santin, University of Padua, A. Y. 2011-12.
 7. *Radial basis functions networks for ODEs: application to diabetes and insulin therapy models*, candidate: Giulia Antinori, University of Padua, A. Y. 2011-12.
 8. *A Scilab radial basis functions toolbox*, candidate: Anna Bassi, University of Padua, A. Y. 2011-12.
 9. *Reconstruction of medical images from Radon data in trasmission and emission tomography*, candidate: Davide Poggiali, University of Padua, A. Y. 2011-12.
 10. *A sound model for music signals*, candidate: Matteo Briani, University of Padua, A. Y. 2012-13.
 11. *Kernel-based medical image reconstruction*, candidate: Maria Angela Narduzzo, University of Padua, A. Y. 2013-14.
 12. *Kernel-based medical image reconstruction from Radon data*, candidate: Silvia Guglielmo, University of Padua, A. Y. 2013-14.
 13. *Una nuova tecnica di cubatura quasi-Montecarlo su domini 2d e 3d*, candidate: Claudia Bittante, University of Padova, A. Y. 2013-2014.
 14. *A comparison of some RBF interpolation methods: theory and numerics*, candidate: Andrea Idda, University of Padova, A.Y. 2014-15.
 15. *Cubature on manifolds with low discrepancy and minimal energy points*, candidate: Giacomo Elefante, University of Padova, A.Y. 2015-16.
 16. *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.

- 17. *Numerical solution of PDEs on general surfaces by RBFs*, candidate: Sara Carlino, University of Padova, A.Y. 2015-16.
- Master’s degree in Computer Science (nr. 1)
 - 1. *Hyperinterpolation at Xu points and interpolation at Padua points in the square: computational aspects*, candidate: Roberto Montagna, University of Verona ,A. Y. 2006-7.
- Ph.D. in Computational Mathematics (nr. 1)
 - 1. *Approximation in kernel-based spaces, optimal subspaces and approximation of eigenfunctions*, candidate: Gabriele Santin, University of Padova, Ph.D. XXVIII-grant 2013-15.
- Master’s degree in Mathematics (Co-supervisor)
 - 1. *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.
 - 2. *Su una tecnica di interpolazione e regressione ed applicazioni*, Mathematics, candidate: Mariarosa Mazza, University of Calabria, A.Y. 2011-12.
- 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

10 CONFERENCES AND SEMINARS

10.1 ORGANIZATION OF CONFERENCES

- IMACS conference, *Innovative Methods in Numerical Analysis*, Bressanone (Bz), Sept. 1992: member of organizing the committee
- *Approximation of Curves and Surfaces*, Florence, 8-9 June 2000: member of the organizing committee
- *First Dolomites Workshop on Constructive Approximation and Applications*, Alba di Canazei (Tn), 2-8 Sept. 2006: member of the organizing and scientific committee.
- *Dolomites Research Week on Approximation, DRWA07*, Alba di Canazei, 3-7 Sept. 2007: member of the organizing committee
- *Dolomites Research Week on Approximation, DRWA08*, Alba di Canazei, 8-11 Sept. 2008: member of the organizing committee
- *Second Dolomites Workshop on Constructive Approximation and Applications*, Alba di Canazei, 4-9 Sept. 2009: member of the organizing and scientific committee.

- *Dolomites Research Week on Approximation, DRWA10*, Alba di Canazei, 6-9 Sept. 2010: member of the organizing committee
- *Dolomites Research Week on Approximation, DRWA11*, Alba di Canazei, 5-9 Sept. 2011: member of the organizing committee
- *Third Dolomites Workshop on Constructive Approximation and Applications*, Alba di Canazei, 9-14 Sept. 2012: member of the organizing and scientific committee.
- *Dolomites Research Week on Approximation, DRWA13*, Alba di Canazei, 9-13 Sept. 2013: member of the organizing committee
- *Multivariate Approximation*, Verona, 29-30 Nov. 2013: member of the organizing committee
- *Dolomites Research Week on Approximation, DRWA14*, Alba di Canazei, 8-12 Sept. 2014: member of the organizing committee
- *The 2015 International Workshop on Computer Auditing Education*, July 9, 2015, Vancouver (Canada): member of the program committee
- *New Trends in Numerical Analysis (NETNA 2015)*, 18-21 June, 2015, Falerna : member of the scientific committee
- *Dolomites Research Week on Approximation, DRWA15*, Alba di Canazei, 4-8 Sept. 2015: member of the organizing committee
- *Fourth Dolomites Workshop on Constructive Approximation and Applications*, Alba di Canazei, 8-13 Sept. 2016: member of the organizing and scientific committee.
- *The 2017 International Workshop on Computer Auditing Education*, June 19-20, 2017, London (UK): member of the program committee
- *Dolomites Research Week on Approximation, DRWA17*, Alba di Canazei, 4-8 Sept. 2017: member of the organizing committee

10.2 SEMINARS/GUEST LECTURES/COLLOQUIUMS

- I have given seminars/guest lectures/colloquiums on my research topics at the following Universities: Hamburg (D), Antwerp (B), Boise (ID, USA), Bruxelles (B), Camerino (I), Chicago IIT (IL, USA), Cosenza (I), Fribourg (CH), Giessen (D), Grenoble (F), Göttingen (D), Haifa (IL), Krakow (PL), Lugano (CH), Munich (D), Helmholtz-Munich (D), Oslo (N), Padova (I), Potenza(I), Stuttgart (D), Udine (I), Turin (I), Vanderbilt at Nashville (TS, USA), Verona (I), Warsaw (PL), Zaragoza (E).

Slides of some of these talks are available here:

<http://www.math.unipd.it/~demarchi/Presentations.html>.

- Lectures on “Polynomial and analytic blossoming”, University of Padua, Feb-Mar. 2003.

11 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 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 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", Italian Sommelier Association, Padua delegation, Abano Terme 23/11/06.
25. "Stability bounds for multivariate kernel-based recovery processes", talk given at biennial 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?: it invited 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*, Scholoss Dagsthul (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 Rauischholzhausen (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. "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.
48. "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.
49. "Opening remarks", *4th Dolomites Workshop on Constructive Approximation and Applications*, Alba di Canazei (I), Sept 20, 2016.
50. "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.
51. "Kernel-based Image Reconstruction from Scattered Radon Data", *invited colloquium speaker* at the GIPSA-Lab - Grenoble (France), December 7th, 2016.
52. "Kernel-based image reconstruction from scattered Radon data", *invited colloquium speaker* at the Institut fuer Angewandte Analysis und Numerische Simulation - University of Stuttgart (Germany), February 2nd, 2017.
53. "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.

Slides of some of these talks (the most recent ones) are available here:

<http://www.math.unipd.it/~demarchi/Presentations.html>.

12 PUBLICATIONS

12.1 PAPERS IN REFEREED JOURNALS

1. Doria, A., Angrilli, F. and De Marchi, S., *Inverse kinematics robot calibration by splines functions*. Appl. Math. Modelling, Vol. 17(1993), 492–498.
2. De Marchi, S., Morandi Cecchi, M., *The polynomial approximation in the finite element method*. Jour. Comp. Appl. Math., Vol. 57(1995), 99–114.
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.
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.
6. De Marchi, S., *On Computing derivatives for C^1 interpolation schemes: an optimization*. Computing, 60(1)(1998), 29–53.
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.
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.
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.
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.
12. De Marchi, S. *Polynomials arising in factoring generalized Vandermonde determinants II: a condition for monicity*. Appl. Math. Lett., 15(5) (2002), 627–632.

13. Ligon, A., Timchenko, S., Schumeiko, A. and De Marchi, S. *An interpolant defined by subdivision: analysis of the error* J. Comput. Applied Math. 145 (2002), 71–88.
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.
15. S. De Marchi *On optimal point locations for radial basis interpolation: computational aspects*, Rend. Sem. Mat. Torino, Vol. 61(3), 343-358 (2003).
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).
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).
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).
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).
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).
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).
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).
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).
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).
26. M. Caliari, S. De Marchi, R. Montagna e M. Vianello *HYPHER2D: a numerical code for hyperinterpolation at Xu points on rectangles*, Appl. Math. Comput., Vol. 183(1), pp. 1138-1147 (2006).

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).
28. De Marchi, S., *Mathematics and Wine*. Appl. Math. Comput. 192, pp. 180-190 (2007).
29. M. Caliari, S. De Marchi e M. Vianello, *Hyperinterpolation on the square* J. Comput. Appl. Math. 210(1-2) pp 78-83, (2007).
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).
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).
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).
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).
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.
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.
37. R. Schaback, S. De Marchi, *Nonstandard kernels and their applications*, DRNA (Dolomites Research Notes on Approximation), Vol. 2, (2009), 16-43.
38. S. De Marchi e R. Schaback: *Stability of Kernel-Based Interpolation*, Adv. Comput. Math., Vol. 32(2), (2010), 155-161.
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.
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.
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.

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.
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.
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.
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. 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.
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.
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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.
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.
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.
54. S. De Marchi and K. Usevich: *On certain multivariate Vandermonde determinants whose variables separate*, Linear Algebra Appl. 449 (2014), pp. 17–27.
55. 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.
56. S. De Marchi, A. Sommariva and M. Vianello: *Multivariate Christoffel functions and hyperinterpolation*, Dolomites Res. Notes Approx. 7 (2014), pp. 26–33.

57. 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.
58. 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).
59. 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.
60. 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.
61. 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.
62. 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).
63. L. Bos, S. De Marchi and M. Vianello: *Trivariate polynomial approximation on Lissajous curves*, IMA J. Numer. Analysis (2017) 37, pp. 519–541.
64. R. Cavoretto, S. De Marchi et al.: *Partition of unity interpolation using stable kernel-based techniques*, Appl. Numer. Math. 116 (2017), pp. 95–107.
65. 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.
66. S. De Marchi and G. Andreatta: *Ricci tensors and wine in Lugo di Romagna and Padova, Italy*, to appear in Math. Intelligencer (2017).

12.2 PAPERS IN CONFERENCE PROCEEDINGS

67. 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 serie in *Symposia in Applied Mathematics*, (1994), 281–285.

68. De Marchi, S., Morandi Cecchi, M., *Fractal interpolation functions for a class of finite elements*. In Wavelets, Images and Surface Fitting, edited by P.-J. Laurent, A. Le Méhauté and L. L. Schumaker, A. K. Peters, (1994), 189–196.
69. 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.
70. Morandi Cecchi, M., De Marchi, S., Secco, E. *Un modello Idrodinamico per lo studio della Laguna di Venezia* , Proceedings of the Conference "Sistema Lagunare Veneziano", Vol. 2, pp. 1530–1555, 2000.
71. 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.
72. De Marchi, S., Pica A. *Some applications of data-dependent triangulations*, Convegno SIMAI, Chia Laguna (2002).
73. 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).
74. De Marchi, S., *Some recent results on Leja sequences*, in Teoria Aproksymacji, Kolo Matematyków Studentów UJ (Ed.), 25-51 (2003).
75. De Marchi, S., *Radial basis functions interpolation and optimal center locations*, in Teoria Operatorów, Kolo Matematyków Studentów UJ (Ed.), 55-67 (2004).
76. 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)
77. 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.
78. 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.
79. 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.
80. 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.

81. S. De Marchi, *Trivariate polynomial approximation on Lissajous curves*, Dagstuhl seminar 15251 report, p. 68, nr. 3.31.
82. 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

12.3 POSTERS

83. *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.
84. *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.
85. *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.
86. *Polynomial Admissible Meshes*, by S. De Marchi, F. Piazzon, A. Sommariva and M. Vianello poster presented at CMMSE 2015, Cadiz (Spain).
87. *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.
88. *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.
89. *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.
90. *New Tools for Multivariate Polynomial Approximation*, by L. Bos, S. De Marchi, A. Sommariva and M. Vianello, poster presented at ICIAM 2011, Vancouver (Canada).
91. *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.

92. *Near-optimal interpolation and quadrature in two variables: the Padua points*, by M. Caliarì, S. De Marchi, A. Sommariva and M. Vianello, poster presented at 5th European Congress of Mathematics, Amsterdam July 14-18, 2008.
93. *Bivariate Lagrange interpolation at the Padua points: computational aspects*, by M. Caliarì, 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.

13 PROCEEDINGS EDITED

94. 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.
95. Proceedings of the Second Dolomites Workshop on Constructive Approximation and Applications. Held in Alba di Canazei, September 4–8, 2009. Numer. Algorithms, 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
96. 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
97. Proceedings of the Workshop *Kernel Functions and Meshless Methods*, held in Goettinge (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.
98. 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 Caliarì, Stefano De Marchi, Norm Levenberg and Marco Vianello.
99. Special Issue on *Ten Years of the Padua Points*, Dolomites Res. Notes Approx. Vol. 8 (2015). Guest editors: Stefano De Marchi and Marco Vianello.

13.1 ARCHIVES

100. 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.

13.2 RELEVANT TECHNICAL REPORTS

101. De Marchi, S., *Frattali: Scienza ed Arte Insieme. INGENIUM*, (VI), 1988.
102. De Marchi, S. *A Short Survey of Fractal Interpolation Curves and Surfaces*, Department of Pure and Applied Mathematics, University of Padua, TR 2/1994.
103. De Marchi, S., Morandi Cecchi M. *The Dyadic Iterative Interpolation Method and Some Extensions*, Department of Pure and Applied Mathematics, University of Padua, TR 10/1994.
104. De Marchi, S., Fasoli, D. and Morandi Cecchi, M.. **LABSUP. A LA**boratory for **B**ivariate C^1 **SUR**faces and **P**atches, Mathematical Background and User's Guide. Department of Pure and Applied Mathematics, University of Padua, TR 9/1996.
105. De Marchi, S. *Generalized Vandermonde determinants, Toeplitz matrices and the Polynomial Division Algorithm*, Universität Dortmund, Ergebnisberichte Angewandte Mathematik, nr. 176, June 1999.
106. 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.
107. 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.
108. 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.
109. 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.
110. 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.

13.3 MISCELLANEA

111. De Marchi, S., *Frattali: Scienza ed Arte Insieme. INGENIUM*, Engineering Ingegneria Informatica S.p.A., nr. 6 (1988), 7–16.

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113. De Marchi, S., *Matematica e vino. Il Sommelier Veneto*, Vol. 1, pp. 10 (2007).
114. De Marchi, S., *Some mathematics in the wine: part I. Matematicamente* (Rivista della Mathesis di Verona), n. 113 (2007).
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13.4 SUBMITTED

116. S. De Marchi, A. Idda and G. Santin: *A rescaled method for RBF approximation*, November 2016.
117. S. De Marchi and G. Elefante: *Quasi-Monte Carlo integration on manifolds with mapped low-discrepancy points and greedy minimal Riesz s -energy points*, October 2016.
118. S. De Marchi, W. Erb and F. Marchetti: *Spectral filtering for the reduction of the Gibbs phenomenon of polynomial approximation methods on Lissajous curves with applications in MPI*, February 2017.
119. S. De Marchi, A. Iske and G. Santin: *Image Reconstruction from Scattered Radon Data by Weighted Positive Definite Kernel Functions*, February 2017.

13.5 MONOGRAPHS

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121. Stefano De Marchi *Appunti di Calcolo Numerico* con codici in *Matlab/Octave*. Editrice Esculapio-Bologna, II Ed. 2016, pp. 260, ISBN: 9788874889396.
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13.6 MASTER THESIS

124. De Marchi, S. *Approssimazione con Splines Multivariate*. University of Padua, 1991.

13.7 PH.D. THESIS

125. De Marchi, S. *Approssimazioni e Interpolazioni su "Simplices": Caratterizzazioni, Metodi ed Estensioni*. Ph. D. in *Matematica Computazionale e Informatica Matematica, VI ciclo*. University of Padua, 1994.

14 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: CHEByshv 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 e M. Vianello: *XuPad2D*.
<http://www.math.unipd.it/~mcaliari/software.htm>.
Toolbox in Matlab for hyperinterpolation on Xu points, 2006.
4. M. Caliari, S. De Marchi, R. Montagna e M. Vianello *HyperCube*.
<http://www.math.unipd.it/~mcaliari/software.htm>.
Fortran 77 for the hyperinterpolation on the cube, 2006.
5. M. Caliari, S. De Marchi e M. Vianello: *Padua2D*.
<http://www.math.unipd.it/~mcaliari/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 e M. Vianello: *InterPD*.
<http://www.math.unipd.it/~mcaliari/software.htm>,
C code for interpolation at Padua points.

7. S. De Marchi e M. Vianello: *Hyper3*.
<http://www.math.unipd.it/~demarchi/software.htm>
 Matlab code for hyperinterpolation and cubature on the 3d cube.
8. S. De Marchi and M. Vianello: *3dWAM*
<http://www.math.unipd.it/~demarchi/software.htm>
 Matlab package for 3-dimensional WAMs.
9. S. De Marchi and G. Elefante: *GMKs*
<http://www.math.unipd.it/~demarchi/software.htm>
 GMKs: Matlab package for computing integrals on manifolds with low discrepancy and greedy minimal ks points

15 LECTURE NOTES

1. De Marchi, S. *Four lectures on radial basis functions*. See the link
<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> one can find slides and pdf of the courses I taught

16 ACTIVITY AS EDITOR AND REFEREE

- Editor in chief of *Dolomites Research Notes on Approximation (DRNA)*
 (<http://journals.padovauniversitypress.it/dolomites/>)
- Editorial board of *Journal of Pure and Applied Mathematics: Advances and Applications*
 (<http://scientificadvances.co.in/index.php?cmd=journal&j=5>)
- Editorial board of *The Scientific World Journal*, mathematical analysis
 (<http://www.hindawi.com/journals/tswj/editors/mathematical.analysis/>): 2012-July 2016.
- Editorial board of the book series: *MATHEMATICAL AND COMPUTATIONAL BIOLOGY AND NUMERICAL ANALYSIS*, *Biomathematics and numerical analysis book series*, Aracne Editrice.
- I served as referee for the following journals:

- 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
 - Jean Journal on Approximation
 - Applied Mathematics E-Notes
 - International Mathematical Journal
 - Mediterranean Journal of Mathematics
 - Computer and Mathematics with Applications
 - 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
- I have been reviewer of the research project FCT *Fundação para a Ciência e a Tecnologia (Portugal)*, Project Grant Schemes, 2012.
 - I have been reviewer of the book "Kernel-based Approximation Methods using MATLAB", by G. Fasshauer and M. Mc Court in press by World Scientific Publishing, 2015.
 - I have been reviewer of the research project G048815N of the FWO (Flemish Research Institute), as expert of the Mathematical Sciences panel.
 - I have been reviewer for SIR proposals (SIR=Scientific Independence of young Researchers).

17 BIBLIOMETRICS

- Co-authors (from Scopus) = 43
- MathSciNet: 61 publications, 283 citations
- ZMATH (up to 2015): 55 publications
- Google Scholar: 1029 citations, h-index=17
- Scopus: 54 publications, 416 citations, h-index=12
- ISI: 46 publications, 340 citations, h-index=10
- ResearchGate: 94 publications, 664 citations, RG score=27.96, h-index=15
- MR Erdős Number=3