

# Curriculum Vitae



## Personal Information

**Name**

**Muraru Carmen-Violeta**

**Address**

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**Nationality**

Romanian

**Date of birth**

19.08.1974

## Work Experience

2008- present

Lecturer, University of Bacau, Department of Mathematics and Informatics, Faculty of Science;

2004- 2008

Assist. prof., University of Bacau, Department of Mathematics and Informatics, Faculty of Science;

2001-2004

Junior Assist., University of Bacau, Department of Mathematics and Informatics, Faculty of Science;

2001-2002

Mathematics teacher, „Anghel Saligny”, High-School, Bacau

1997-1998

Computer Science teacher, „Henri Coanda”, Technical College, Bacau

## Education and Training

2008

PhD in Applied Mathematics on the Numerical Analysis domain with a degree thesis regarding the Functions Approximation Theory using linear and positive operators

2003- 2007

PhD student in Applied Mathematics at the Faculty of Mathematics and Computer Science „Babes-Bolyai” University of Cluj-Napoca, supervisor Prof. Octavian Agratini, PhD

2000-2001

Master in Numerical Analysis, Faculty of Mathematics and Computer Science „Babes-Bolyai” University of Cluj-Napoca,

1998-2001

The Faculty of Computer Science, the „Technique of Calculus” College, Technical University of Cluj-Napoca with a degree on computational graphics

1993-1997

The Faculty of Science, Department of Mathematics and Physics, University of Bacau

1989-1993

„George Bacovia” High-School, Bacau (nowdays „Ferdinand I” National College, Bacau)

## **Personal Skills and Competences**

### **Mother Tongue**

Romanian

### **Other Languages**

English – excellent  
Italian - good

### **Artistic Skills and Competences**

- painting, music, sport, travelling
- 2009-2011- courses on Art School, Picture and Design

### **Social Skills and Competences**

- team-worker, commitment
- research works in collaboration with other authors

### **Organizing Skills and Competences**

- co-ordinate activities with students;
- member in Reform Commission of „Vasile Alecsandri” University
- member in the Research Unit of the Department of Mathematics and Informatics, University of Bacau
- member in the Organizing Committee of the INTERNATIONAL CONFERENCE ON MATHEMATICS AND INFORMATICS, ICMI45, Bacau, Romania, 2006
- member in the Organizing Committee of the CNMI 07, Bacău, Romania, November 16-17, 2007;
- member in the Organizing Committee of the INTERNATIONAL CONFERENCE ON MATHEMATICS AND INFORMATICS, ICMI2, Bacau, Romania, 2009

### **Technical Skills and Competences**

- work with computers, programming and using Microsoft Office
- Programing Languages Pascal, C++, MatLab, MathCad, AutoCad

### **Driving Licence(s)**

- license B

### **Additional Information**

#### **Research main Domains:**

- Theory of functions approximation;
- B-spline and Bezier curves and surfaces;
- Computer Graphics Aided Design

#### **Courses and seminars:**

- Numerical Methods
- Numerical Analysis
- Mathematics Software
- Economical Informatics

- Software for Statistics

### Articles

1. Carmen Muraru, "Some remarks on theory of interpolation", *Studii și Cercetări Științifice, ser. Mathematica*, 13(2003), 79-88, Bacău;
2. Cerasela Crisan, Muraru Carmen, "The study of the parameters of Ant system", *Proceedings of International Symposium of Young Researchers*, ASE Moldova, ISBN 978-9975-75-319-1, pg. 36-39, Chișinău, Rep. Moldova, 2005;
3. Carmen Muraru, "On the monotonicity of Schurer type polynomials", *Carpathian Journal of Mathematics*, 21(2005), 89-94, Baia Mare;
4. Carmen Muraru, "Remarks on knot inserting of a B-spline curve using Matlab", *Proceedings of International Symposium of Young Researchers*, ASE Moldova, ISBN 978-9975-75-371-2, 54-57, Chișinău, Rep. Moldova, 2006;
5. Carmen Muraru, "On a class of bivariate operators", *Proceedings of International Conference on Numerical Analysis and Theory Approximation, NAAT 2006*, Cluj-Napoca, Romania, ISBN 973-686-961-X, 305-311 (eds. O. Agratini, P. Blaga);
6. Carmen Muraru, "Kantorovich-Szász bivariate operators", *Proceedings of International Conference on Mathematics and Informatics, ICMI45*, Bacău, Romania, 2006, 169-175, *Scientific Studies and Researches, Mathematics serie*, 16(2006), Supliment;
7. Carmen Muraru, "Applications of divided differences in study of linear and positive operators", *Scientific Studies and Researches, Mathematics serie*, 16(2006), Bacău, 131-140;
8. Carmen Muraru, "On a class of bivariate Mirakjan-Szász type operators", *Journal of Approximation Theory and Applications*
9. Ogun Dođru, Carmen Muraru, "Statistical approximations by a Stancu type bivariate generalization of Meyer-Konig and Zeller type operators", *Mathematical and Computer Modelling (ISI)*, vol. 48, issues 5-6, September 2008, 961-968
10. Carmen Muraru, "On the sequence of Kantorovich type operators", *International Journal of Pure and Applied Mathematics*, 45(2008), 439-445
11. C. V. Muraru, V. Nîminet, "On a bivariate generalized Boolean Sum type operator", *Scientific Studies and Researches, Mathematics serie*, 18 (153-160), 2008;
12. V. Nîminet, C.V. Muraru, "Canonical nonlinear connection of lagrangian nonholonomic mechanical systems", *Scientific Studies and Researches, Mathematics serie*, 18(173-180), 2008;
13. Nechita E., Muraru C.V., Talmaciu M.,

- „Mechanisms in social insect societies and their use in optimization. A case study for trail laying behaviour”, Proceedings of the International Workshop: Bio- Inspired Comp. Methods used for Difficult Problems and Solving. Development of Intelligent and Complex Systems, BICS 2008, Tg Mures, 2008, Ed. AIP Conference proceedings 1117;
14. A.M. Acu, A. Rafiq, C.V. Muraru, „The remainder term of some quadrature formulae”, Scientific Studies and Research. Series Mathematics and Informatics, ISSN 2067 – 3566, 19 (1) ,5-15, 2009
  15. C.V. Muraru, „On a Problem of Fitting Data Using Bezier Curves”, Broad Research in Artificial Intelligence and Neuroscience, Volume 1, Issue 2 , April 2010, ISSN 2067-3957 ,127-132
  16. C.V. Muraru, „Note on  $q$ -Bernstein- Schurer operators”, Studia Universitatis, ser. Mathematica (to be apperar)

### Conferences

1. INTERNATIONAL SYMPOSIUM OF YOUNG RESEARCHERS, ASE MOLDOVA, Chişinău, Rep. Moldova, 2005, Cerasela Crisan, Muraru Carmen , *The study of the parameters of Ant system*;
2. INTERNATIONAL SYMPOSIUM OF YOUNG RESEARCHERS, ASE MOLDOVA, Chişinău, Rep. Moldova, 2006, Carmen-Violeta Muraru , *Remarks on knot inserting of a B-spline curve using Matlab*;
3. MASSE INTERNATIONAL CONGRESS OF MATHEMATICS, MICOM 2006, May 31-June 4, Paphos, Cyprus , Carmen-Violeta Muraru, *Applications of divided differences in study of linear and positive operators*;
4. INTERNATIONAL CONFERENCE ON NUMERICAL ANALYSIS AND THEORY APPROXIMATION, NAAT 2006, June 5-8, Cluj-Napoca, Romania (eds. O. Agratini, P. Blaga), Carmen-Violeta Muraru, *On a class of bivariate operators*;
5. INTERNATIONAL CONFERENCE ON MATHEMATICS AND INFORMATICS, ICMI45, Bacău, România, September 24-27, 2006, Carmen-Violeta Muraru, *Kantorovich-Szász bivariate operators* ;
6. APPLIED MATHEMATICS AND SCIENTIFIC COMPUTING, BRIJUNI, CROATIA, JULY 9-13, 2007, Carmen-Violeta Muraru, *On the approximation properties of the bivariate tensor product*
7. FOURTH INTERNATIONAL CONFERENCE OF APPLIED MATHEMATICS AND COMPUTING, Plovdiv, August 12-18, 2006, Bulgaria, Carmen-Violeta Muraru, *On the sequence of Kantorovich type operators*;
8. INTERNATIONAL CONFERENCE ON NUMERICAL ANALYSIS AND THEORY APPROXIMATION, Second Ed. NAAT 2010, September 23-26, Cluj-Napoca, Romania (eds. O. Agratini, P. Blaga), Carmen-Violeta Muraru, *On a generalized  $q$ -Bernstein- Schurer polynomials*;

*Books:*

1. Carmen-Violeta Muraru, „Numerical Methods. Seminars in Matlab”, Ed. Edusoft, Bacau 2005, ISBN 973-87655-44;
2. Bogdan Patrut, Carmen-Violeta Muraru, „Applications in C and C++”, Ed. Edusoft, Bacau 2006, ISBN 973-8934-05-2;
3. Carmen- Violeta Muraru, „Matlab- Guide for Study”, Ed. Edusoft, Bacau 2006, ISBN(10) 973-8934-35-4, ISBN (13) 978-973-8934-35-1
4. Carmen- Violeta Muraru, „Contributions on the approximation of functions using linear operators”, Doctoral Thesis, Ed. Edusoft Bacau 2009, ISBN 978-973-1882-15-4 ;
5. Valer Nimitet, Carmen-Violeta Muraru, „Computational Geometry with applications in Matlab”, Ed. PIM, 2010, ISBN 978-605-520-667-0
6. Carmen Violeta Muraru, Alina Mihaela Patriciu „Numerical Methods with applications in Matlab” Ed. PIM, 2101, ISBN 978-6-6-520-935-4
7. *Advanced Bio-Inspired Computational Methods*, Ed. Univ. „Petru-Maior”, Editors: Calin Enachescu, Barna Iantovich, Florin Filip, Part IV „Ant Colony Optimization” ISBN 978-973-7794-77-2, Nechita E., Muraru C.V., Talmaciu M., „Mechanisms in social insect societies and their use in optimization. A case study for trail laying behaviour”

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