

# **Lista lucrărilor științifice**

**Candidat: Lector Dr. Marius-Mihai Birou**

## **• Lista celor mai relevante 10 lucrări**

- 1) M.M. Birou, New Rates of Convergence for the Iterates of Some Positive Linear Operators, *Mediterr. J. Math.*, 14(2017), Issue: 3, Article Number: UNSP 129. **(ISI)**
- 2) M.M. Birou, A proof of a conjecture about the asymptotic formula of a Bernstein type operator, *Results Math.*, 72(2017), Issue: 3, 1129-1138. **(ISI)**
- 3) M.M. Birou, A class of Markov operators which preserve  $e_j$ ,  $j \geq 1$ , *Appl. Math. Comp.*, 250(2015), 1-11. **(ISI)**
- 4) M.M. Birou, Bernstein type operators with a better approximation for some functions, *Appl. Math. Comp.*, 219(2013), 9493-9499. **(ISI)**
- 5) V. N. Mishra, P. Sharma, M. Birou, Approximation by Modified Jain-Baskakov Operators, *Georgian Mathematical Journal*, acceptată **ISI**.
- 6) M. Birou, Blending surfaces generated using the Bernstein operator, *Creative Mathematics and Informatics*, 21(1), 2012, 35-40.
- 7) M. Birou, A note about some general King operators, *Annals of Tiberiu Popoviciu Seminar* 12(2014), 3-16.
- 8) M. Birou, Discrete operators associated with Durrmeyer operators, *Studia Univ Babes Bolyai Math.*, 65(2015), no. 2, 295-302.
- 9) M.M. Birou, A note about a conjecture, *Annals of Tiberiu Popoviciu Seminar*, 14(2016), 13-16.
- 10) M.M. Birou, F. Nasaïreh, Explicit representation of the approximation of the solutions of some diffusion equations, *Annals of Tiberiu Popoviciu Seminar*, 14(2016), 17-30

## **• Teza de doctorat**

Titlu: Metode booleene și de tip produs în aproximarea bidimensională  
Conducător științific: Prof. Univ. Dr. Gheorghe Coman  
Universitatea Babeș Bolyai Cluj Napoca  
Sustinere publică: 09.12.2005

## **• Cărți**

- 1) M.M. Birou, *Culegere de probleme de calcul integral*, Editura Mega, Cluj Napoca, 2018. ISBN 978-606-543-938-2.

2) M. Birou, Bivariate approximation formulas, Casa cărții de știință, Cluj Napoca, 2008, ISBN 978-973-133-414-1.

3) Gh Coman, T Catinas, M Birou, A Oprisan, C Osan, I Pop, I Somogyi, I Todea, Interpolation operators, Casa cărții de știință, Cluj Napoca, 2004, ISBN 973-686-603-3.

**• Articole în extenso, publicate în reviste din fluxul științific internațional**

i) **Articole/studii publicate în reviste de specialitate de circulație internațională recunoscute (cotate ISI)**

1) M.M. Birou, New Rates of Convergence for the Iterates of Some Positive Linear Operators, *Mediterr. J. Math.*, 14(2017), Issue: 3, Article Number: UNSP 129.

2) M.M. Birou, A proof of a conjecture about the asymptotic formula of a Bernstein type operator, *Results Math.*, 72(2017), Issue: 3, 1129-1138.

3) M.M. Birou, A class of Markov operators which preserve  $e_j$ ,  $j \geq 1$ , *Appl. Math. Comp.*, 250(2015), 1-11.

4) M.M. Birou, Bernstein type operators with a better approximation for some functions, *Appl. Math. Comp.*, 219(2013), 9493-9499

5) V. N. Mishra, P. Sharma, M. Birou, Approximation by Modified Jain-Baskakov Operators, *Georgian Mathematical Journal*, acceptată

6) M.M. Birou, New quantitative results for the convergence of the iterates of some positive linear operators, *Positivity*, trimisă spre publicare.

ii) **Lucrări publicate în reviste indexate BDI (necotate ISI)**

1) Gh. Coman Gh., M. Birou, Bivariate spline-polynomial interpolation, *Studia Univ Babes Bolyai*, 48(2003), no 4, 17-25.

2) M. Birou, Biermann interpolation with Hermite information, *Studia Univ. Babes-Bolyai*, 51(2005), no. 3, 41-55.

3) M. Birou, Biermann interpolation of Birkhoff type, *Rev. Anal. Numer. Theor. Approx.*, 34(2005), no. 1, 37-45.

4) M. Birou, Some extensions of bivariate tensor-product formula, *Studia Univ. Babes-Bolyai*, 51(2005), no. 4., 11-21.

5) M. Birou, C.O. Oșan, Boolean Shepard interpolation, *Studia Univ. Babes-Bolyai*, 52(2006), no. 1, 27-40.

6) M. Birou, Some interpolation schemes with triangular and rectangular elements of Birkhoff type, *Creative Mathematics and Informatics*, 16(2007), 1-12.

- 7) M. Birou, Some cubatures with Chebyshev nodes, *Studia Univ. Babes Bolyai*, 53(2007), no. 3., 13-23.
- 8) M. Birou, A bivariate operator which interpolates some partial derivatives of a function at the vertices of a triangle, *Autom. Comput. Appl. Math.*, 16(2007), no. 2, 9-16.
- 9) M. Birou, Bivariate operators of binomial type, *Autom. Comput. Appl. Math.*, 17(2008), no. 3, 381-386.
- 10) M. Birou, Bivariate operators which interpolate some partial derivatives of a function on the vertices of a square, *International Journal of Pure and Applied Mathematics*, 46(2008), no. 3, 313-320.
- 11) M. Birou, Some bivariate piecewise operators, *Creative Mathematics*, 17(2008), no. 3, 313-318.
- 12) M. Birou, Blending surfaces on circular domains generated by blending interpolation *Autom. Comput. Appl. Math.* 18(2009), no. 1, 97-106.
- 13) M. Birou, Some blending surfaces on rhombus, *Autom. Comput. Appl. Math.*, 19(2010), no. 1, 47-56.
- 14) M. Birou, Blending surfaces on Circular domains generated by Hermite interpolation *Studia Univ Babes Bolyai Math.*, 60(2010), no. 4, 185-192.
- 15) M. Birou, Blending surfaces on ellipse generated using the Bernstein operators, *Studia Univ Babes Bolyai*, 56(2), 2011, 237-246.
- 16) M. Birou, Blending surfaces on astroid, *Studia Univ Babes Bolyai Math.*, 56(3), 2011, 127-134.
- 17) M. Birou, Blending surfaces generated using the Bernstein operator, *Creative Mathematics and Informatics*, 21(1), 2012, 35-40.
- 18) M. Birou, A Voronovskaya type theorem for some generalized Bernstein operators, *Autom. Comput. Appl. Math* 21 (2012), no. 1, 3-9.
- 19) M. Birou, Some polynomials operators of Bernstein type, *Autom. Comput. Appl. Math.* 22 (2013), no. 1, 33-40.
- 20) M. Birou, A Bernstein-Durrmeyer operator which preserves  $e_0$  and  $e_2$ , *General Mathematics*, 22(2014), no. 1, 49-58.
- 21) M. Birou, A note about some general King operators, *Annals of Tiberiu Popoviciu Seminar* 12(2014), 3-16.
- 22) M. Birou, Some blending surfaces generated by univariate interpolation, *General Mathematics*, 22 (2014), no. 2, 19-26.
- 23) M. Birou, Discrete operators associated with Durrmeyer operators, *Studia Univ Babes Bolyai Math.*, 65(2015), no. 2, 295-302.

- 24) M. Birou, Discrete Bernstein type operators which preserve  $e_0$  and  $e_j, j \geq 1$ , Annals of Tiberiu Popoviciu Seminar 13(2015), 3-12.
- 25) M.M. Birou, A note about a conjecture, Annals of Tiberiu Popoviciu Seminar, 14(2016), 13-16.
- 26) M.M. Birou, F. Nasaireh, Explicit representation of the approximation of the solutions of some diffusion equations, Annals of Tiberiu Popoviciu Seminar, 14(2016), 17-30.
- 27) M.M. Birou, F. Nasaireh, Rates of convergence for the iterates of some positive linear operators which preserve the linear functions, Autom. Comput. Appl. Math., 25(2016), 3-9.

**• Publicații în extenso apărute în lucrări ale principalelor conferințe internaționale de specialitate**

- 1) M. Birou, Optimal cubature of product type, SYNASC Timișoara, România, 6th International Symposium, September 26-30, 2004, Proceedings (Ed. Dana Petcu et all), 59-64.

**• Alte publicații**

- 1) M. Birou, Bivariate approximation of scattered data, Seminar of Numerical and Statistical Calculus, Faculty of Mathematics and Computer Science, Babes-Bolyai University, Cluj-Napoca, 2004, 3-14.
- 2) Dragan, M. Birou, C. Arsene, Study on the generation of the surfaces used in construction with the Birkhoff type interpolation, Bul. St Univ Nord Baia Mare, Seria D, Explotari miniere, Volumul XXIV Nr.2, 97-104.
- 3) M. Birou, Aplicații ale formulelor de cuadratură, Simpozion, 28 februarie 2018, Satu Mare.

05.06.2018  
Cluj-Napoca

LECT. UNIV. DR.  
MARIUS-MIHAI BIROU