

CURRICULUM VITAE

1. Personal data:

Name: **Vladimir Rakočević**

Born: Niš, January 30, 1953

Address: University of Niš, Faculty of Science and Mathematics,
Department of Mathematics, Višegradska 33,
18000 Niš, Serbia

e-mail: vrakoc@bankerinter.net

Fax: (+18)533-015

2. Academic Qualifications:

PhD University of Belgrade, Faculty of Science, 1984.
(Thesis Title: *Essential spectra and Banach algebras*)

MA University of Skopje, Faculty of Mathematics, 1979.
(Thesis Title: *Fredholm operators*)

BA University of Niš, Faculty of Philosophy, Department of Mathematics,
1975

3. Professional Career:

Head of Department of Mathematical Analysis and Applications, Faculty of
Philosophy, Faculty of Science and Mathematics, University of Niš,(1998 to
date)

Head of Department of Mathematics, Faculty of Philosophy, University of
Niš, (1986-1988)

Full Professor, University of Niš, Faculty of Philosophy, Faculty of Science
and Mathematics, Department of Mathematics, (1994 to date)

Associate Professor, University of Niš, Faculty of Philosophy, Department of
Mathematics, (1989-1994)

Assistant Professor, University of Niš, Faculty of Philosophy, Department of
Mathematics, (1985-1989)

Assistant, University of Niš, Faculty of Philosophy, Department of Mathe-
matics, (1975-1984)

4. Visiting Professorships:

Université Le Havre, Le Havre, France, 2004

The University of Melbourne, Melbourne, Australia, 2002

The University of Melbourne, Melbourne, Australia, 2001

Mathematisches Institut, Universität Würzburg, Würzburg, Germany, 2001

Yarmouk University, Irbid, Jordan, 1998

Institute of Mathematics, Czech Academy of Sciences, Prague, Czech Republic, 1995

Institute of Mathematics, Polish Academy of Sciences, Warszawa, Poland, 1989

Institute of Mathematics, Polish Academy of Sciences, Warszawa, Poland, 1987

Moscow State University, Im. Lomonosov, USSR, 1986

5. Research Guidance:

Four candidates have been awarded Ph. D. degrees under my supervision

Nine candidates have been awarded M. Sc., degrees under my supervision

6. Refereeing and Reviewing:

Acta Mathematica Hungarica

Mat. Vesnik

Publ. Inst. Math. Beograd

Facta Univ. Ser. Math. Inform.

Publ. Zb. Rad. Ser. Matematika

Filomat

Journal of The Australian Math. Society

Studia Mathematica

Mathematical Reviews

Math. Zbl.

Linear Algebra and Its Applications

Rendiconti del Circolo Matematico di Palermo

Acta. Sci. Math. (Szeged)

Novi Sad Journal of Mathematics

Mathematica Moravica

Soochow J. Math

Iranian Journal of Science and Technology
 Applied Numerical Mathematics
 Applied Mathematics Letters
 Journal of Mathematical Analysis and Applications
 Journal of Numerical Analysis
 Kragujevac Journal of Mathematics
 Publ. Math. Debrecen
 Indian Journal of Mathematics
 International Journal of Mathematics and Mathematical Sciences
 Bulletin of the London Mathematical Society
 Journal of Operator Theory
 Nonlinear Analysis, Series A, Theory, Methods and Applications
 Journal of Inequalities and Applications
 Mathematical and Computer Modeling

7. Course Taught:

a) Under-graduate:

Calculus I, Measures and Integrations, Functional Analysis, Operator Theory, Special Topics in Algebra and Analysis.

b) Post Graduate :

Fredholm operators, Banach algebras, Spectral Theory, Measures of Noncompactness, Generalized Inverses and Applications, Measures and Integrations.

8. Field of Specialization:

Functional Analysis, Operator Theory, Linear Algebra

Fredholm operators and generalizations, Essential Spectra, Measures of Noncompactness, Generalized Inverses and Applications,

9. Invited Talks:

Université Le Havre, Le Havre, France, 15.12.2004.

Workshop in Mathematical Analysis, March 15-20, 2004. CIMAT, Guanajuato, Mexico

University of Morelija, 2.04.2004, Morelija, Mexico.

International Conference on Operator Theory and Operator Algebras, Torre Normanna, Palermo, Italy, 22-28 June 2003, OTOA 2003

The University of Melbourne, Melbourne, Australia, 2001

Monash University, Melbourne, Australia, 2001

Mathematisches Institut, Universit Würzburg, Würzburg, Germany, 2001

10th Congress of Yugoslav Mathematicians, Belgrade, 21-24.01.2001.

18th International Conference on Operator Theory, June 27–July 1, 2000, University of the West Timisoara, Romania.

The Fourth International Jordanian Mathematics Conference, Yarmouk University, Irbid, Jordan, 24-26 August, 1998.

Institute of Mathematics, Czech Academy of Sciences, Prague, Czech Republic, 1995

University of Novi Sad, 1993, Yugoslavia,

Operator Theory and Banach algebras, Stefan Banach international Mathematical Center, Warsaw, Poland, May 25 - 30, 1992.

University of Belgrade, Yugoslavia, 1990, 1992, 1993,

University of Skopje, R. Macedonia, 1992,

Functional Analysis Seminar, Luleč, May 27- June 5, 1991, Ceshoslovačka.

Third Annual Conference on “Operator Theory and Operator Algebras”, University College, Cork, Ireland, from Wednesday 29 June, through to Saturday 2 July, 1988,

Congresss of the Polish Mathematical Society in Czestakowa, Poland, 8-11 September 1987, special session devoted to Operator Theory,

10. Publications:

a) Book (Monograph):

1. V. Rakočević, Functional Analysis, Naučna Knjiga, Beograd, 1994., 242 + viii.
2. D. Cvetković-Ilić and V. Rakočević, Functional Analysis, Exercises, Faculty of Sciences and Mathematics, Niš, 2007., 152 + iv.
3. D. S. Djordjević and V. Rakočević, Lectures on Generalized Inverses, Faculty of Sciences and Mathematics, Niš, 2008., 201 + vi.

b) Research Papers:

- [1] V. Rakočević, On one subset of M. Schechter’s essential spectrum, Mat. Vesnik 5(18)(33) (1981), no. 4, 389–391.
- [2] V. Rakočević, Measures of non-strict-singularity of operators, Mat. Vesnik 35 (1983), no. 1, 79–82.

- [3] V. Rakočević, On the essential approximate point spectrum. II. *Mat. Vesnik* 36 (1984), no. 1, 89–97.
- [4] V. Rakočević, Polynomially compact elements of Banach algebras, *Mat. Vesnik* 36 (1984), no. 2, 167–172.
- [5] V. Rakočević, On J. C. Alexander's theorem, *Mat. Vesnik* 36 (1984), no. 3, 249–250.
- [6] V. Rakočević, Remarks on locally q -contraction operators, *Mat. Vesnik* 36 (1984), 357–360.
- [7] V. Rakočević, On a class of operators, *Mat. Vesnik* 37 (1985), no. 4, 423–426.
- [8] V. Rakočević, Approximate point spectrum and commuting compact perturbations, *Glasgow Math.J.* 28 (1986), no. 2, 193–198.
- [9] V. Rakočević, Weyl's theorem for a bundle of operators, *Zb.-Rad.* (1986), No. 10, 189–192.
- [10] V. Rakočević, On a class of operators. II. *Rad. Mat.* 2 (1986), no. 1, 75–80.
- [11] V. Rakočević, Moore-Penrose inverse in Banach algebras. *Proc. Roy. Irish Acad. Sect. A* 88 (1988), no. 1, 57–60.
- [12] V. Rakočević and J. Zemánek, Lower s -numbers and their asymptotic behaviour. *Studia-Math.* 91 (1988), no. 3, 231–239.
- [13] Rakočević, Operators obeying a -Weyl's theorem, *Rev. Roumaine Math. Pures Appl.* 34 (1989), no. 10, 915–919.
- [14] V. Rakočević, Spectral radius formulae in quotient C^* -algebras. *Proc. Amer. Math. Soc.* 113 (1991), no. 4, 1039–1040.
- [15] V. Rakočević, On the continuity of the Moore-Penrose inverse in Banach algebras. *Facta Univ. Ser. Math. Inform.* (1991), No. 6 133–138.
- [16] V. Rakočević, A note on regular elements in Calkin algebras, *Collect. Math.* 43 (1992), no. 1, 37–42.
- [17] V. Rakočević, On the essential spectrum. *Zb. Rad.* (1992), No. 6, 39–48.
- [18] V. Rakočević, On a formula for the jumps in the semi-Fredholm domain. *Rev. Mat. Univ. Complut. Madrid* 5 (1992), no. 2-3, 225–232.
- [19] V. Rakočević, On the equality $\|\cdot\|_e = \|\cdot\|_w$. *Zb. Rad.* (1992), No. 6, part 2, 411–412.
- [20] V. Rakočević, Generalized spectrum and commuting compact perturbations. *Proc. Edinburgh Math. Soc.* 36 (1993), no. 2, 197–209.
- [21] V. Rakočević, On a Riesz part of the spectrum of Atkinson (B) type operator. *Riv. Mat. Pura Appl.* (1993), No. 12, 27–31.
- [22] V. Rakočević, On the continuity of the Moore-Penrose inverse in C^* -algebras. *Math. Montisnigri* 2 (1993), 89–92.

- [23] V. Rakočević, On a conjecture of P. Nylén and L. Rodman, *Mat. Bilten* 43 (1993), no. 17, 51–52.
- [24] V. Aleksić and V. Rakočević, Approximate properties of the Moore-Penrose inverse. VIII Conference on Applied Mathematics (Tivat, 1993), 1–14 Univ. Montenegro, Podgorica, 1994.
- [25] I. Jovanović and V. Rakočević, Multipliers of mixed-norm sequence spaces and measures of noncompactness. *Publ. Inst. Math.(Beograd) (N.S.)* 56(70) (1994), 61–68.
- [26] V. Rakočević, Semi-Fredholm operators with finite ascent or descent and perturbations. *Proc. Amer. Math. Soc.* 123 (1995), no. 12, 3823–3825.
- [27] V. Rakočević, Extremal perturbations of bounded operators, IX Conference on Applied Mathematics (Budva, 1994), 209–212, Univ. Novi Sad, Novi Sad, 1995.
- [28] V. Rakočević, On Harte's theorem for regular boundary elements. *Filomat*, (1995), No. 9, part 3, 899–910.
- [29] V. Rakočević, A note on Maeda's inequality, *Facta Univ. Ser. Math. Inform.*, 11(1996), 93 – 100.
- [30] V. Rakočević, Semi-Browder operators and perturbations. *Studia Math.* 122 (1997), no. 2, 131–137.
- [31] V. Rakočević, On continuity of the Moore–Penrose and Drazin inverses, *Mat. Vesnik*, 49(1997), 163-172.
- [32] I. Jovanović and V. Rakočević, Multipliers of mixed-norm sequence spaces and measures of noncompactness II. *Mat. Vesnik*, 49(1997), 197-206.
- [33] V. Kordula, V. Müller and V. Rakočević, On the semi-Browder spectrum, *Studia Math.* 123 (1997), 1-13.
- [34] V. Rakočević, Measures of noncompactness and some applications, *Filomat*, 12, 2,(1998), 87-120.
- [35] J. J. Koliha and V. Rakočević, Continuity of the Drazin inverse II, *Studia Math.*, 131(1998), 167-177
- [36] E. Malkowsky and V. Rakočević, The measure of noncompactness of linear operators between certain sequence spaces, *Acta Sci. Math. (Szeged)*, 64(1998), 151-170.
- [37] V. Rakočević, Continuity of the Drazin inverse, *J. Operator Theory*, 41(1999), 55-68.
- [38] V. Rakočević, A note on two indices of semigroup elements, *Publ. Inst. Math. (Beograd) (N.S.)*, 65(79)(1999), 109-111.
- [39] V. Rakočević, A note on generalized inverse functions, *Mathematica Moravica*, 3(1999), 49-52.

- [40] V. Rakočević, Apostol spectrum and generalizations: a brief survey, *Facta Univ. Ser. Math. Inform.*, 14(1999), 79-108.
- [41] I. Jovanović and V. Rakočević, A note on the range of compact multipliers of mixed-norm sequence spaces, *Matematika Moravica*, 3(1999), 29-32.
- [42] E. Malkowsky and V. Rakočević, The measure of noncompactness of linear operators between spaces of m^{th} -order difference sequences, *Studia Sci. Math. Hungar.*, 35(1999), 381-395.
- [43] V. Rakočević and S. Živković, Lower analogues of Gelfand and Kolmogorov numbers, *Indian J. Pure Appl. Math.*, 30(8)(1999), 777-785.
- [44] V. Rakočević, On the norm of idempotent operators in a Hilbert space, *Amer. Math. Monthly*, 107(2000), 748-750.
- [45] V. Rakočević, A note on a theorem of I. Vidav, *Publ. Inst. Math.(Beograd) (N.S.)* 68(82) (2000), 105–107.
- [46] E. Malkowsky and V. Rakočević, An Introduction in to the Theory of Sequence Spaces and Measures of Noncompactness, *Zb. Rad. (Beogr.)* 9(17)(2000), 143-234.
- [47] E. Malkowsky and V. Rakočević, The measure of noncompactness of linear operators between spaces of strongly C_1 summable and bounded sequences, *Acta Math. Hungar.*, 89(2000)29-45.
- [48] V. Rakočević, Quasi contraction nonself mappings on Banach spaces and common fixed point theorems, *Publ. Math. Debrecen*, 58(2001), 451-460
- [49] E. Malkowsky and V. Rakočević, Measure of noncompactness of linear operators between spaces of sequences that are (\overline{N}, q) summable or bounded, *Czechoslovak Math. J.*, 51(126)(2001), 505-522
- [50] V. Rakočević and Yimin Wei, The perturbation theory for the Drazin inverse and its applications II, *J. Aust. Math. Soc.*, 70(2001), 189-197.
- [51] V. Rakočević, Koliha-Drazin invertible operators and commuting Riesz perturbations, *Acta. Sci. Math. (Szeged)* 68(2002), 291–301.
- [52] V. Rakočević and Yimin Wei, The W -weighted Drazin inverse, *Linear Algebra Appl.*, 350(2002), 25-39
- [53] N. Castro González, J.J. Koliha and V. Rakočević, Continuity and general perturbation of the Drazin inverse of for closed linear operatoras, *Abstr. Appl. Anal.*, 7(2002), 335-347
- [54] J.J. Koliha and V. Rakočević, Invertibility of the sum of idempotents, *Linear Multilinear Algebra*, 50(2002), 285-292.
- [55] E. Malkowsky, V. Rakočević and S. Živković–Zlatanović, Matrix Transformations between some sequence spaces and their measures of noncompactness, *Bull. Cl. Sci. Math. Nat. Sci. Math.* 27(2002), 33-46.

- [56] J.J. Koliha and V. Rakočević, Invertibility of the difference of idempotents, *Linear Multilinear Algebra*, 51(2003), 97-110.
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- [58] V. Rakočević and Yimin Wei, The Representation and Approximation of the W -weighted Drazin inverse of Linear Operators in Hilbert Space, *Appl. Math. Comput.* 141(2003), 455-470
- [59] I. Jovanović, E. Malkowsky and V. Rakočević, Bounded point evaluations and cyclic polynomials on the space F , *Rend. Circ. Mat. Palermo (2)* 52(2003),308-314
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- [63] J.J. Koliha and V. Rakočević, On the norms of idempotents in C^* -algebras, *Rocky Mountain J. Math*, 34 (2004), 685-697
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- [65] D. S. Cvetković, D. S. Djordjević and V. Rakočević, Schur complements in C^* -algebras, *Mathematische Nachrichten*, 278(2005), 808-814.
- [66] J.J. Koliha and V. Rakočević, Fredholm properties of the difference of orthogonal projections in a Hilbert space, *Integral Equation and Operator Theory*, 52(2005), 125-134.
- [67] B. de Malafosse and V. Rakočević, Applications of measure of noncompactness in operators on the spaces $s_\alpha, s_\alpha^\circ, s_\alpha^{(c)}, \ell_\alpha^p$, *J. Math. Anal. Appl.* **323**(2006), 131-145.
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- [70] B. de Malafosse and V. Rakočević, A generalization of a Hardy theorem, *Linear Algebra and its Applications*, 421(2007), 306-314.

- [71] E. Malkowsky and V. Rakočević, On Matrix domains of triangles, Appl. Math. Comput., 189(2007), 1146-1163.
- [72] V. Rakočević, Perturbations of direct complements in Hilbert spaces, Applied Mathematics Letters, **20**(2007), 450-454.
- [73] Lj. Gajić and V. Rakočević, *Quasi contractive nonself mappings on convex metric spaces and common fixed point theorems*, Fixed Point Theory Appl., **3**(2005), 365-375.
- [74] J.J. Koliha and V. Rakočević, *Differentiability of the g -Drazin inverse*, Studia Mathematica, **168**(2005), 193-201.
- [75] J.J. Koliha and V. Rakočević, *Holomorphic and meromorphic properties of the g -Drazin inverse*, Demonstratio Mathematica, **38**(2005), 657-666.
- [76] J.J. Koliha and V. Rakočević, *The nullity and rank of linear combinations of idempotent matrices*, Linear Algebra and its Applications, **418**(2006), 11-14.
- [77] J.J. Koliha and V. Rakočević, *Stability theorems for linear combinations of idempotents*, Integral Equations Operator Theory, 58(2007), 597-601.
- [78] J.J. Koliha and V. Rakočević, *Range projections and the Moore-Penrose inverse in rings with involution*, Linear and Multilinear Algebra, **55**(2007), 103-112.
- [79] Lj. Gajić and V. Rakočević, *Pair of non-self-mappings and common fixed points*, Appl. Math. Comput., 187 (2007), 999-1006.
- [80] D. Ilić and V. Rakočević, *Common fixed points for maps on metric space with w -distance*, Applied Mathematics and Computation, 199(2008), 599-610.
- [81] D. Ilić and V. Rakočević, *Common fixed points for maps on cone metric space*, J. Math. Anal. Appl., 341(2008), 876-882.