

MELANIJA MITROVIĆ, PHD, FULL PROFESSOR

Head of the Center for Applied Mathematics, Faculty of Mechanical Engineering Niš,
CAM-FMEN (since 2019) (<http://camfmn.masfak.ni.ac.rs/>)

Chair of the Seminar Constructive Mathematics: Foundation and Practice,
CM:FP, Faculty of Mechanical Engineering Niš (<http://seminarcmfpm.masfak.ni.ac.rs/index.html>)

Held status of Permanent Full Professor
at the International Chair in Mathematical Physics and Applications (ICMPA-UNESCO Chair),
University of Abomey-Calavi, Benin Republic
http://www.cipma.net/spip.php?page=rubrique&id_rubrique=27

Member of the Editorial Board Mathematics in Mind, Springer
<https://www.springer.com/series/15543>
<https://www.springer.com/series/15543?detailsPage=aboutTheEditor>

Member of the Fields Cognitive Science Network
<http://www.fields.utoronto.ca/generalinfo/Fields-Cognitive-Science-Network>

Member of Peer Community In (PCI) Neuroscience

1. ABOUT

Melanija Mitrović is a full professor at the Department of Mathematics and Informatics of the Faculty of Mechanical Engineering, University of Niš. She has received her BSc and MSc degrees at the Faculty of Philosophy, University of Niš, and her PhD degree at the Faculty of Mathematics and Sciences, University of Niš, in 2000. She is lecturing at all three levels of higher education in Serbia, as well as abroad.

She works in the field of algebra and its applications to engineering. She is the head of the Center of Applied Mathematics of the Faculty of Mechanical Engineering Niš, CAM-FMEN (<http://camfmn.masfak.ni.ac.rs>), around which, among other activities, she develops an interdisciplinary research group investigating applications of algebraic structures to problems in engineering science.

Major lines of her research, professional work and expertise are in basic classical and constructive algebraic structures, especially within areas of semigroup and semiring theory, Witt and Virasoro algebras, groups and representations, integrable systems. Her innovating work within the theory of constructive semigroups with apartness positions her among the pioneers of

the constructive algebra in Serbia. Outside of Serbia, she is recognized as the mother of the novel theory of constructive semigroups with apartness, considered as a new algebraic theory. It is worth pointing out that the definition of semigroups with apartness is taken and modified from artificial intelligence area, which, in turn, makes Professor Mitrović's most recent research interests focus, beside growing the theory, on possible applications in real life.

She published her works in renowned outstanding international journals. She refereed for renowned journals in mathematics. She is invited as plenary speakers at highly ranking international conferences in a regular basis to communicate about her research results. She often acts as the chair of organizing committees and a program committee member of prestigious international conferences.

She is a guest speaker at leading universities worldwide. She serves as an international jury member for doctoral theses. She is author of a well-known scientific monograph, at national level, on semigroup theory. Her works in the field of algebra so far has made a significant contribution to its development, which is reflected in the expansion of existing knowledge (classical semigroup theory and semiring theory) and in the establishment of completely new theory of constructive semigroups with apartness.

She received *the Award Povelja of the Faculty of Mechanical Engineering Niš* in 2019 for her permanent work connected to the promotion of the faculty and University of Niš algebraic group.

2. PERSONAL DATA

Citizenship: Serbian

Family: Married: dr Borica Mitrović, medical doctor

Four children: Mladen Mitrović, Vladimir Mitrović, Jelena Stevanović, Nikola Stevanović

Office: Faculty of Mechanical Engineering, Room 230, A. Medvedeva Street, University of Niš, Niš, Serbia

Email: melanija.mitrovic@masfak.ni.ac.rs

ORCID: 0000000190733360

3. SELECTED PUBLICATIONS

M. Mitrović: *Semilattices of Archimedean Semigroups*, (with a foreword by Donald B. McAlister), University of Niš, 2003 – scientific monograph of national importance

M. Mitrović, M. N. Hounkonnou, M. A. Baroni: *Theory of constructive semigroups with apartness - foundations, development and practice*, *Fundamenta Informaticae* (accepted)
<https://arxiv.org/abs/2008.11008>

Erik Darpö, M. Mitrović: *Some results in constructive semigroup theory*, arxiv 2103.07105
<https://arxiv.org/abs/2103.07105>

M. N. Hounkonnou, M. J. Landalidji, M. Mitrović: *Noncommutative Kepler Dynamics: symmetry groups and bi-Hamiltonian structures*, *Theoretical and Mathematical Physics*, 207, 2021, 751-769
<https://link.springer.com/article/10.1134/S0040577921060064>

M. Mitrović, S. Silvestrov: *(Apartness) Isomorphism theorems for basic constructive algebraic structures with special emphasize on constructive semigroups with apartness - an overview*, in *Algebraic Structures and Applications* (Eds.S. Silvestrov, A. Malyarenko, M. Rančić), SPAS 2017, Västerås and Stockholm, Sweden, October 4-6, Springer 2019, 653-686
<https://www.springerprofessional.de/en/isomorphism-theorems-for-basic-constructive-algebraic-structures/18097554>

M. Mitrović, S. Silvestrov: *Semilattice decompositions of semigroups. Hereditariness and periodicity- an overview*, in *Algebraic Structures and Applications* (Eds.S. Silvestrov, A. Malyarenko, M. Rančić), SPAS 2017, Västerås and Stockholm, Sweden, October 4-6, Springer 2019, 687-721
<https://www.springerprofessional.de/en/semilattice-decompositions-of-semigroups-hereditariness-and-perio/18097552>

M. N. Hounkonnou, F. Melong, M. Mitrović: *Generalized Witt, Witt n -algebras, Virasoro algebras and KdV equations induced from $R(p;q)$ -deformed quantum algebras*, *Reviews in Mathematical Physics* Vol. 33, NO. 04, 2020, No. 2150011 (33 pages), DOI: 10.1142/S0129055X21500112
<https://www.worldscientific.com/doi/epdf/10.1142/S0129055X21500112>

M. Mitrović, S. Silvestrov, S. Crvenković, D. A. Romano: *Constructive semigroups with apartness: towards new algebraic theory*, *Journal of Physics: Conference Series (JPCS)*, Volume 1194, 2019, 012076, doi:10.1088/1742-6596/1194/1/012076
<https://iopscience.iop.org/article/10.1088/1742-6596/1194/1/012076/meta>

S. Crvenković, M. Mitrović, D. A. Romano: *Basic Notions of (Constructive) Semigroups with Apartness*, Semigroup Forum, June 2016, Volume 92, Issue 3, 659-674.

<https://link.springer.com/article/10.1007%2Fs00233-016-9776-y>

S. Crvenković, M. Mitrović, D. A. Romano: *Semigroups with Apartness*, Mathematical Logic Quarterly, 2013, 59 (6), 407-414, malq.201200107

<https://onlinelibrary.wiley.com/doi/abs/10.1002/malq.201200107>

Y. Shao, S. Crvenković, M. Mitrović: *The Zeleznikow Problem on a Class of Additively Idempotent Semiring*, Journal of the Australian Mathematical Society, 2013, 95 (3), 404–420, DOI 10.1017/SI4466788713000359

<https://www.cambridge.org/core/journals/journal-of-the-australian-mathematical-society/article/zeleznikow-problem-on-a-class-of-additively-idempotent-semirings/7638824E6775CB3E13A7D609E70C7E11>

M. Mitrović: *Regular Subsets of Semigroups Related to their Idempotents*, Semigroup Forum, Volume 70, Number 3 (2005), 356–360

<https://link.springer.com/article/10.1007%2Fs00233-004-0117-1>

4. EDUCATION

1995 – 2000

Postgraduate studies, University of Niš, Faculty of Sciences and Mathematics, Mathematics, Ph. D. of Mathematics, High (VSS) VIII

1983 - 1992

Postgraduate studies, University of Niš, Faculty of Philosophy, Mathematics, M. Sc. Master of Mathematics, High (VSS) VII-2

October 1977 – March 1983

Undergraduate studies, University of Niš, Faculty of Philosophy, Mathematics, Dipl. mathematics, High (VSS) VII-1

5. WORK EXPERIENCE

University of Niš, Faculty of Mechanical Engineering,
Department of Mathematics and Informatics

- Full Professor, since 2014
- Associate Professor, 2006 – 2014

- Assistant Professor, 2001-2006
- Assistant, 1992-2001
- Junior teaching assistant, 1985-2001

Visiting professor

- Mälardalen University, Vasteras, Sweden, several times after 2017
- University of Minho, Braga, Portugal, November, 2014
- Bar-Ilan University, Tel Aviv, Israel, 2013, April-May
- TU Wien, 2009 - member of University of Niš delegation who sign contract between two universities
- TU Wien, several times between 2005-2011
- University of Banja Luka, several times since 2007
- UTAD (University of Trás-os-Montes and Alto Douro), Vila Real, Portugal, 2008
- Mathematical Institute of the Serbian Academy of Sciences and Arts, Belgrade, several times since 2005
- University of Bucharest, Romania, September, 2004
- Politecnico di Milano, Italy, 2004, 3-10 July
- University of Novi Sad, several times since 2001

Host professor

- Mahouton Norbert Hounkonnou, University of Abomey-Calavi, Benin, 2021 (July 24-August 6)
http://camfmn.masfak.ni.ac.rs/Academician_MHN_visit.html
- Vladimir Balan, University Politehnica of Bucharest, Romania, 2020
- Paolo Agliano, University of Siena, Italy, 2019
- Gradimir V. Milovanović, Serbian Academy of Sciences and Arts, SASA, Belgrade, 2018
- Zvonimir Šikić, University of Zagreb, Croatia, 2019
- Marko Petković, Faculty of Sciences and Mathematics, Niš, 2019
- Miloš Adžić, Faculty of Philosophy, Belgrade, 2017
- Eberhard Malkowsky, State University of Novi Pazar, Novi Pazar, 2017
- Zoran Petrić, Mathematical Institute SASA, Belgrade, 2016
- Kosta Došen, Mathematical Institute SASA, Belgrade, 2016
- Zoran Ognjanović, Mathematical Institute SASA, Belgrade, 2016
- Žikica Perović, MiraCosta College, USA, 2016
- Silvia Ghilezan, University of Novi Sad, 2016
- Erik Darpö, Mälardalen University, Vasteras, Sweden, 2015-2016
- Shao Yong, Northwest University, X'ian, P. R. China, 2015
- Douglas S. Bridges, University of Canterbury, Christchurch, New Zealand, 2013
- Hans Kaiser, (Vicerector of) TU Wien, Austria, 2007

- Paola Catarino, UTAD (University of Trás-os-Montes and Alto Douro), Vila Real, Portugal, 2007
- Masami Ito, Kyoto Sangyo University, Japan, 2007
- Alessandra Cherubini, Politecnico di Milano, Italy, 2004
- Cristian Calude, The University of Auckland, New Zealand, 2003
- Siniša Crvenković, University of Novi Sad, 2003
- Donald McAlister, Northern Illinois University, 2002

6. RESEARCH

Research interest – main (but not limited to)

- Theory of constructive semigroups with apartness
- Algebraic theory of semigroups
- Classical and constructive algebraic theory of semirings
- Witt and Virasoro algebras
- Groups and representations.

Books

Articles

Invited talks

Grants

Referee

Books

Monographs

M. Mitrović: *Semilattices of Archimedean Semigroups*, (with a foreword by Donald B. McAlister), University of Niš, 2003 – scientific monograph of national importance

Textbooks

D. Milovančević, M. Mitrović, Lj. Radović: *Matematika 2*, Univerzitet u Nišu – Mašinski fakultet, 2013

M. Mitrović, Z. Lozanov-Crvenković, K. Živković: Zbirka rešenih zadataka iz poslovne statistike, Univerzitet u Nišu – Mašinski fakultet, 2018

Edited books

M. N. Hounkonnou, M. Mitrović (Eds): *Mathematics for Human Flourishing in the time of COVID-19 and post COVID-19*, Proceedings, De Gruyter, ISBN 978-3-11-073862-9 (to appear in 2022)

N. Hounkonnou, D. Martinovic, M. Mitrović, P. Pattison: MATHEMATICS FOR SOCIAL SCIENCES AND ARTS – ALGEBRAIC MODELING (Semigroups, arts and social sciences: ubiquitous interactions), MATHEMATICS IN MIND, Springer, 9 (to appear in 2022)

Abstract booklets

M. Mitrović, M. N. Hounkonnou: *Abstract Booklet - Classical & Constructive Semigroups And Applications*, ACaCS 2021, September 6-8, 2021, ISBN 9-788660-551551
http://acacs2020.masfak.ni.ac.rs/ACaCS2020_files/ACACS%20BOOKLET.pdf

M. N. Hounkonnou, M. Mitrović, M. Abbas, M. Khan: *Abstract Booklet - Classical and Constructive Nonassociative Algebraic Structures: Foundations and Applications*, CaCNAS:FA 2021, June 30-July 2, 2021, ISBN 9-788660-551513
http://cacnas.masfak.ni.ac.rs/cacnas_files/CaCNAS%20Booklet%20Abstract.pdf

M. N. Hounkonnou, M. Mitrović, P. Pattison, D. Martinovic: *Abstract Booklet - Mathematics for Social Sciences and Arts – Algebraic Modeling*, MS²A²M 2021, May 24-26, 2021, ISBN 978-99982-0-865-0 Dépôt légal N°13077 du 18-05-2021 2ème trimestre, Bibliothèque Nationale du Benin
http://mathsocart.masfak.ni.ac.rs/ms2a2m2021_files/Abstract%20Booklet.pdf

M. N. Hounkonnou, M. Mitrović: *Abstract Booklet of the Webinar Mathematics for Human Flourishing in the time of COVID-19 and post COVID-19*, 12 October 2020, ISBN : 978-99982-0-613-7 Dépôt légal N°12586 du 12-11-2020 4ème trimestre, Bibliothèque Nationale du Benin
<http://camfmen.masfak.ni.ac.rs/Files/Abstract%20booklet.pdf>

Articles

Book chapters

M. Mitrović, S. Silvestrov: (*Apartness*) *Isomorphism theorems for basic constructive algebraic structures with special emphasize on constructive semigroups with apartness - an overview*, in

Algebraic Structures and Applications (Eds.S. Silvestrov, A. Malyarenko, M. Rančić), SPAS 2017, Västerås and Stockholm, Sweden, October 4-6, Springer 2019, 653-686
<https://www.springerprofessional.de/en/isomorphism-theorems-for-basic-constructive-algebraic-structures/18097554>

M. Mitrović, S. Silvestrov: *Semilattice decompositions of semigroups. Hereditarness and periodicity- an overview*, in Algebraic Structures and Applications (Eds.S. Silvestrov, A. Malyarenko, M. Rančić), SPAS 2017, Västerås and Stockholm, Sweden, October 4-6, Springer 2019, 687-721
<https://www.springerprofessional.de/en/semilattice-decompositions-of-semigroups-hereditarness-and-periodio/18097552>

M. Mitrović: *On Semilattices of Archimedean semigroups - a survey*, in Proceedings of the Workshop on Semigroups and Languages, 2002, Lisbon, Portugal, World Scientific 2004, 163–196
<https://www.worldscientific.com/worldscibooks/10.1142/5584>

Book articles

Accepted

M. N. Hounkonnou, V. Adanhounme, M. Mitrović: *Dynamics of COVID-19 pandemic: control problem and equilibrium stability characterization*, to appear in Mathematics for Human Flourishing in the Time of COVID-19 and Post COVID-19 (Eds. M. N. Hounkonnou, M. Mitrović), DeGruyter Proceedings, ISBN 978-3-11-073862-9

M. N. Atchade, Y. M. Sokadjo, M. N. Hounkonnou, M. Mitrović: *Did passenger air traffic significantly influence the spread of COVID-19 in the world?*, to appear in Mathematics for Human Flourishing in the Time of COVID-19 and Post COVID-19 (Eds. M. N. Hounkonnou, M. Mitrović), DeGruyter Proceedings, ISBN 978-3-11-073862-9

M. N. Atchade, Y. M. Sokadjo, M. Mitrović, M. N. Hounkonnou: *Risk estimate of COVID-19 spread between poverty clusters in Africa using Markov Chain modeling*, to appear in Mathematics for Human Flourishing in the Time of COVID-19 and Post COVID-19 (Eds. M. N. Hounkonnou, M. Mitrović), DeGruyter Proceedings, ISBN 978-3-11-073862-9

Published

S. Bogdanović, M. Ćirić, M. Mitrović: *Semigroups Satisfying Certain Regularity Conditions*, “Advances in Algebra - Proceedings of the ICM Satellite Conference in Algebra and Related Topics”, World Scientific Publ. Co. Singapore, 2003, 46–59

https://www.worldscientific.com/doi/abs/10.1142/9789812705808_0004

M. Mitrović, S. Bogdanović, M. Ćirić: *Locally uniformly π -regular semigroups*, Proceedings of the International Conference of Semigroups, Braga, Portugal, 18-23 Jun 1999, World Scientific, 106-113

https://www.worldscientific.com/doi/abs/10.1142/9789812792310_0009

Journal articles

Coming soon

Erik Darpö, M. Mitrović: *Some results in constructive semigroup theory*, arxiv 2103.07105

<https://arxiv.org/abs/2103.07105>

M. N. Hounkonnou, M. J. Landalidji, M. Mitrović: *Hamiltonian Dynamics in Alcubierre and Gödel metrics: Recursion operators and underlying master symmetries*

Accepted

M. Mitrović, M. N. Hounkonnou, M. A. Baroni: *Theory of constructive semigroups with apartness - foundations, development and practice*, Fundamenta Informaticae (accepted)

<https://arxiv.org/abs/2008.11008>

Published

M. N. Hounkonnou, M. J. Landalidji, M. Mitrović: *Noncommutative Kepler Dynamics: symmetry groups and bi-Hamiltonian structures*, Theoretical and Mathematical Physics, 207, 2021, 751-769

<https://link.springer.com/article/10.1134/S0040577921060064>

M. N. Hounkonnou, F. Melong, M. Mitrović: *Generalized Witt, Witt n -algebras, Virasoro algebras and KdV equations induced from $R(p; q)$ -deformed quantum algebras*, Reviews in Mathematical Physics Vol. 33, NO. 04, 2020, No. 2150011 (33 pages), DOI:

10.1142/S0129055X21500112

<https://www.worldscientific.com/doi/epdf/10.1142/S0129055X21500112>

M. Mitrović, S. Silvestrov, S. Crvenković, D. A. Romano, *Constructive semigroups with apartness: towards new algebraic theory*, Journal of Physics: Conference Series (JPCS), Volume 1194, 2019, 012076, doi:10.1088/1742-6596/1194/1/012076

<https://iopscience.iop.org/article/10.1088/1742-6596/1194/1/012076/meta>

S. Crvenković, M. Mitrović, D. A. Romano: *Basic Notions of (Constructive) Semigroups with Apartness*, Semigroup Forum, June 2016, Volume 92, Issue 3, 659-674.

<https://link.springer.com/article/10.1007%2Fs00233-016-9776-y>

Y. Shao, S. Crvenković, M. Mitrović: *Distributive Lattices of Jacobson Rings*, Publications de l'Institut Mathématique, 2016, 100 (114), 87-93

<http://elib.mi.sanu.ac.rs/files/journals/publ/120/publn120p87-93.pdf>

Y. Shao, M. Ren, S. Crvenković, M. Mitrović: *The Semiring Variety Generated by any Finite Number of Finite Fields and Distributive Lattices*, Publications de l'Institut Mathématique, 2015, 98 (112), 45-51

<http://elib.mi.sanu.ac.rs/files/journals/publ/118/publn118p45-51.pdf>

Y. Shao, S. Crvenković, M. Mitrović: *The Variety of Semirings Generated by Distributive Lattices and Finite Fields*, Publications de l'Institut Mathématique, 2014, 95 (109), 101–109

<http://elib.mi.sanu.ac.rs/files/journals/publ/115/n109p101.pdf>

Caserta, S. Đurčić, M. Mitrović: *Selection Principles and Double Sequences II*, Hacettepe Journal of Mathematics and Statistics, Volume 43 (5) (2014), 725-730

<https://dergipark.org.tr/en/download/article-file/668884>

S. Crvenković, M. Mitrović, D. A. Romano: *Semigroups with Apartness*, Mathematical Logic Quarterly, 2013, 59 (6), 407-414, malq.201200107

<https://onlinelibrary.wiley.com/doi/abs/10.1002/malq.201200107>

Y. Shao, S. Crvenković, M. Mitrović: *The Zeleznikow Problem on a Class of Additively Idempotent Semiring*, Journal of the Australian Mathematical Society, 2013, 95 (3), 404–420, DOI 10.1017/SI4466788713000359.

<https://www.cambridge.org/core/journals/journal-of-the-australian-mathematical-society/article/zeleznikow-problem-on-a-class-of-additively-idempotent-semirings/7638824E6775CB3E13A7D609E70C7E11>

B. D. Nikolić, B. Kegl, S. D. Marković, M. S. Mitrović: *Determining the Speed of Sound, Density, and Bulk of Rapeseed Oil, Biodiesel, and Diesel Fuel*, Thermal Science, 2012, 16, Suppl. 2, 505–514

<http://www.doiserbia.nb.rs/Article.aspx?ID=0354-98361200187N#.YaKjctDMJqQ>

S. Crvenković, D.A.Romano, M. Mitrović: *Complementary pair of quasi-antiorders*, pp. Reports on Mathematical Logic, ISSN: 0137- 2904, 45(2010), 1-6

<http://yadda.icm.edu.pl/yadda/element/bwmeta1.element.ojs-issn-2084-2589-year-2010-volume-45-article-2867>

M.Mitrović, D. A. Romano, M.Vinčić: *Theorem on semilattice-ordered semigroup*, International Mathematical Forum; ISSN 1312-7594, 4(5)(2009), 227–232

[http://www.imvibl.org/bibliografija_files/2009/\[121\].pdf](http://www.imvibl.org/bibliografija_files/2009/[121].pdf)

M. Mitrović: *Regular Subsets of Semigroups Related to their Idempotents*, Semigroup Forum, Volume 70, Number 3 (2005), 356–360

<https://link.springer.com/article/10.1007%2Fs00233-004-0117-1>

Z. Marinković, M. Mitrović, G. Petrović, V. Ilić: *Analiza logističkih procesa u skladištu gotovih proizvoda pivarske industrije*, Racionalizacija transporta i manipulisanja - Logistika, br. 2-3/2004, Jugoslovenska zajednica za paletizaciju - JZP, Beograd, 13-20

S. Bogdanović, M. Ćirić, M. Mitrović: *Semilattices of Nil-extensions of Simple Regular Semigroups*, Algebra Colloquium 10:1 (2003), 81-90
<https://link.springer.com/article/10.1007%2Fs100110300010>

G. Petrović, V. Jeftić, M. Mitrović, Z. Marinković: *External Excitations and Disturbances with Bucket Wheel Excavators as Non-linear and Random Functions*, Facta Universitatis (Series: Mechanical Engineering), Vol. 1, No 10, 2003, 1339-1346
<http://facta.junis.ni.ac.rs/me/me2003/me2003-06.html>

S. Bogdanović, M. Ćirić, M. Mitrović: *Semilattices of hereditary Archimedean semigroups*, Filomat (Niš) 9:3 (1995), 611-617, Algebra, Logic and Discrete Mathematics, Niš, April 14-16, 1995, 611-617
<https://www.jstor.org/stable/43999241>

Conference articles

S. Rosić, M. Mitrović, D. Stamenković: *Determining the risk acceptance criteria for operational changes in the railway system using the „Safety II“ principle*, Proceedings / XIX Scientific-Expert Conference on Railways - RAILCON '20, Proceedings / XIX Scientific-Expert Conference on Railways - RAILCON '20, pp. 117 - 120, 978-86-6055-134-6, Niš, December 15-16, 2020

M. N. Hounkonnou, M. Mitrović: *Mathematics for human flourishing in the time of COVID-19 and post COVID-19*, in the Proceedings of the Fifth International Conference „Mechanical Engineering in XXI Century“, MASING, December 9-10, 2020, Niš, 387-390
https://www.masfak.ni.ac.rs/images/upload/Nauka/Konferencije/masing/MASING_2020_Proceedings.pdf

M. N. Hounkonnou, M. Mitrović, M. A. Baroni: *Constructive HMR-order theory for semigroups with apartness*, 9th International Conference Logic and Applications, LAP, September 21 - 25, 2020, Dubrovnik, Croatia, Book of abstracts, 15-17
http://imft.ftn.uns.ac.rs/math/cms/uploads/Main/LAP_2020_Book_of_Abstracts.pdf

M. Mitrović, S. Silvestrov: *Regular subsets and semilattice decompositions of semigroups. Hereditarness and periodicity*, 8th International Conference Logic and Applications, LAP 2018, Dubrovnik, Croatia, September 23-27, 2019
http://imft.ftn.uns.ac.rs/math/cms/uploads/Main/LAP_2019_Book_of_Abstracts.pdf

M. Mitrović, S. Silvestrov: *On basic constructive algebraic structures with apartness*, 7th International Conference Logic and Applications LAP 2018, Dubrovnik, Croatia, September 24-28, 2018, Book of Abstracts, 34-37

http://imft.ftn.uns.ac.rs/math/cms/uploads/Main/LAP_2018_Book_of_Abstracts.pdf

M. Mitrović, S. Crvenković, B. Randelović: *Constructive Semigroups with Apartness: Foundations of the Order Theory II*, in Proceedings of the 4th International Conference Mechanical Engineering in XXI Century, Niš, April 19-20, 2018, 81-88

M. Mitrović, S. Crvenković, B. Randelović: *Constructive Semigroups with Apartness: Foundations of the Order Theory*, 6th International Conference Logic and Applications LAP 2017, Dubrovnik, Croatia, September 18-22, 2017, Book of Abstracts, 34-37

http://imft.ftn.uns.ac.rs/math/cms/uploads/Main/LAP_2017_Book_of_Abstracts.pdf

M. Mitrović, S. Crvenković, D. A. Romano: *Constructive Semigroups with Apartness: Constructive Versions of some Classical Theorems*, the 46th Annual Iranian Mathematics Conference, University of Yazd, Yazd, Iran, August 25-28, 2015, Volume 46, 2015, 64-67

[https://www.researchgate.net/profile/Daniel-Romano-3/publication/299468843_Melanija_Mitrovic_Sinisa_Crvenkovic_and_D_A_Romano_Semigroups_with_apartness_constructive_versions_of_some_classical_theorems_The_46th_Annual_Iranian_Mathematics_Conference_25-28_August_2015_pp_64-](https://www.researchgate.net/profile/Daniel-Romano-3/publication/299468843_Melanija_Mitrovic_Sinisa_Crvenkovic_and_D_A_Romano_Semigroups_with_apartness_constructive_versions_of_some_classical_theorems_The_46th_Annual_Iranian_Mathematics_Conference_25-28_August_2015_pp_64-67_/links/56ff4bff08ace995dde73f7a/Melanija-Mitrovic-Sinisa-Crvenkovic-and-D-A-Romano-Semigroups-with-apartness-constructive-versions-of-some-classical-theorems-The-46th-Annual-Iranian-Mathematics-Conference-25-28-August-2015-pp-64-6.pdf#page=89)

[67_/links/56ff4bff08ace995dde73f7a/Melanija-Mitrovic-Sinisa-Crvenkovic-and-D-A-Romano-Semigroups-with-apartness-constructive-versions-of-some-classical-theorems-The-46th-Annual-Iranian-Mathematics-Conference-25-28-August-2015-pp-64-](https://www.researchgate.net/profile/Daniel-Romano-3/publication/299468843_Melanija_Mitrovic_Sinisa_Crvenkovic_and_D_A_Romano_Semigroups_with_apartness_constructive_versions_of_some_classical_theorems_The_46th_Annual_Iranian_Mathematics_Conference_25-28_August_2015_pp_64-67_/links/56ff4bff08ace995dde73f7a/Melanija-Mitrovic-Sinisa-Crvenkovic-and-D-A-Romano-Semigroups-with-apartness-constructive-versions-of-some-classical-theorems-The-46th-Annual-Iranian-Mathematics-Conference-25-28-August-2015-pp-64-6.pdf#page=89)

[67_/links/56ff4bff08ace995dde73f7a/Melanija-Mitrovic-Sinisa-Crvenkovic-and-D-A-Romano-Semigroups-with-apartness-constructive-versions-of-some-classical-theorems-The-46th-Annual-Iranian-Mathematics-Conference-25-28-August-2015-pp-64-6.pdf#page=89](https://www.researchgate.net/profile/Daniel-Romano-3/publication/299468843_Melanija_Mitrovic_Sinisa_Crvenkovic_and_D_A_Romano_Semigroups_with_apartness_constructive_versions_of_some_classical_theorems_The_46th_Annual_Iranian_Mathematics_Conference_25-28_August_2015_pp_64-67_/links/56ff4bff08ace995dde73f7a/Melanija-Mitrovic-Sinisa-Crvenkovic-and-D-A-Romano-Semigroups-with-apartness-constructive-versions-of-some-classical-theorems-The-46th-Annual-Iranian-Mathematics-Conference-25-28-August-2015-pp-64-6.pdf#page=89)

Petrovic, S. M., Perić, S., Mitrović, M., & Lozanović Sajić, J. (2012). STATISTICAL ENGINE CRANKSHAFT ROTATION ANALYSIS. In *International Congress Motor Vehicles & Motors 2012, Kragujevac, October 3rd-5th, 2012* (pp. 200 - 211)

<https://graz.pure.elsevier.com/en/publications/statistical-engine-crankshaft-rotation-analysis>

S. Stojiljković, M. Mitrović, I. Stamenković: *Primena entropije i teorije informacija na regulisanje bioloških procesa*, Zbornik radova 28. naučno-stručnog skupa sa međunarodnim učešćem - HIPNEF 2002, 461-466

Articles in professional-methodical journals

D. Bogdanić, S. Crvenković, D. Jojić, M. Mitrović, M. Pikula, D. A. Romano, B. Sukara-Čelić, V. Telemek: Završni izveštaj o realizaciji projekta *Special Maltsev's Relational Systems - coequalities and Quasi-antiorders*, Naučno društvo matematičara Banja Luka, MAT-KOL (Banja luka) XVI(2)(2010), 31-34

D. Bogdanić, S. Crvenković, D. Jojić, M. Mitrović, M. Pikula, D. A. Romano, B. Sukara-Čelić, V. Telebak: Polugodišnji izveštaj o realizaciji projekta *Special Maltsev's Relational Systems - Coequalities and Quasi-antiorders*, Naučno društvo matematičara Banja Luka, MAT-KOL (Banja luka), MAT-KOL (Banja luka) XV(1)(2009), 9-15

S. Crvenković, D. Jojić, M. Mitrović, D. A. Romano, M. Vinčić: Završni izveštaj o rezultatima naučno-istraživačkog projekta *Pozitivna kvazi-uređenja na polugrupama sa različitošću*", MAT-KOL (Banja luka) XIV(1)(2008), 91-10

Invited talks

- M. Mitrović, M. N. Hounkonnou, D. A. Romano, *Constructive semigroup with apartness – new ways towards applications of algebra within artificial intelligence*, Serbian Artificial Intelligence Seminar, Mathematical Institute of SASA, Belgrade, June 16, 2021
- M. Mitrović, *Constructive Semigroups with Apartness - a New Approach to Semigroup Theory*, Uppsala University, Sweden, 2017.
- M. Mitrović, *An Introduction to a Development of the Theory of Constructive Semigroups*, Stockholm University, Sweden, 2017
- M. Mitrović, *Semilattices of archimedean semigroups*, MDH, Vasteras, Sweden, 2017.
- M. Mitrović, *Constructive semigroups with apartness – basic notions*, Bar-Ilan University, Tel Aviv, Israel, April 2013.
- M. Mitrović, *Regular Subsets of Semigroups*, UTAD (University of Trs-os-Montes and Alto Douro), Vila Real, Portugal, 2008.
- M. Mitrović, *Studying Semigroups through their Semilattice Decomposition*, DMG Institute, TU Wien, Austria, 2007.
- M. Mitrović, *Presentation of the book Semilattices of Archimedean Semigroups*, University of Niš, Faculty of Mechanical Engineering, 2004, pp. 160, Seminar for Mathematical Logic, Mathematical Institute of SASA, Belgrade 2005
<http://www.mi.sanu.ac.rs/seminars/programs/seminar1.apr2005.htm>

Grants

- 11M04 grant of Faculty of Mechanical Engineering, University of Niš. (1996- 2000)
- “Methods of Logic for Decision Support in Real Situation” (1379), Serbian Ministry of Science, Technology and Development. (2000-2005)
- “Representation of Logical Structures and their Applications in Computer Science” (144013), Serbian Ministry of Science, Technology and Development. (2005-2010)
- “Representations of logical structures and formal languages and their application in computing” (174026), Serbian Ministry of Education, Science and Technological

Development (2010-2019)

- Faculty of Mechanical Engineering, University of Niš, Serbia, Grant “Research and development of new generation machine systems in the function of the technological development of Serbia” (since 2020)
- Grant “Positive Quasi-antiorders in Semigroup with Apartness”, Faculty of Philosophy University of East Sarajevo, Ministry for Science and Technology of the Republic of Srpska, Bosnia and Herzegovina, Scientific Society of Mathematicians Banja Luka. (2007-2008)
- Grant “Special Maltsev’s Relational Systems - Coequalities and Quasi- antiorders”, Scientific society of mathematicians Banja Luka, Ministry of sciences and technology of the Republic of Srpska, Bosnia and Herzegovina. (2008-2010)
- Grant RN 1202.018-18, Central European Initiative – CEI
- Savremena istraživanja u teoriji fiksne tačke: metrički i topološki pristup, Elektrotehnički fakultet, Univerzitet u Banjoj Luci. (from 2019)
- EUROWEB+ mobility project (3 months at Mathematics and Applied Mathematics) at Mälardalen University, Sweden, 2017, 2018.
- 2005, November-December Tempus IMG-SCG1025-2005, TU Wien, Austria.

Referee

- Open Mathematics – formerly Central European Journal of Mathematics
- Discussiones Mathematicae General Algebra and Applications
- Journal of Applied Logic
- Asian-European Journal of Mathematics, AEJM
- Applied and Computational Mathematics, SciencePG
- Algebraic structures and their applications, ASTA
- Semigroup Forum
- Filomat
- Mathematical Reviews, USA
- Zentralblatt für Mathematik, Germany - local redaction

7. CONFERENCES

Conference organization

Invited talks

Participant

Conference organization

Chair of the Organization Committee, Member of the Program Committee

- *Classical & Constructive Semigroups and Applications, ACaCS 2021*, September 6-8, 2021, Niš, Serbia <http://acacs2020.masfak.ni.ac.rs/>
- *Classical and Constructive Nonassociative Algebraic Structures: Foundations and Applications, CaCNAS:FA 2021*, In the memory of Nebojša Stevanović (1962-2009), June 30 – July 2, 2021, Niš, Serbia <http://cacnas.masfak.ni.ac.rs/>
- *Mathematics for Social Sciences and Arts – Algebraic Modeling, MS²A²M 2021*, May 24-26, 2021, Niš, Serbia <http://mathsocart.masfak.ni.ac.rs/>
- *Mathematics for Human Flourishing in the time of Covid-19 and Post Covid-19*, October 21, 2020, Niš, Serbia http://camfmnen.masfak.ni.ac.rs/Webinar_Covid.html
- *Constructive Mathematics: Foundations and Practice, CM:FP 2013*, June 24-28, 2013 Niš, Serbia <http://www2.masfak.ni.ac.rs/cmfp2013/>
- *Theoretical Computer Science - from Foundation to Application, TCS-FA 2009*, 7-11 of November 7-11, Niš <http://www2.masfak.ni.ac.rs/tcs-fa09/>

Member of the Program and/or Organization Committee

- *The Fourth International Conference “Mechanical Engineering in the 21st Century”*, Niš, April 19-20, 2018 - member of the Programme Committee
- *The Third International Conference “Mechanical Engineering in the 21st Century ”*, Niš, 17-18 September, 2015 - member of the Organizing Committee
- *The Second International Conference “Mechanical Engineering in the 21st Century ”*, Niš, 20-21 of June - member of Organizing Committee
- *The International Conference “Mechanical Engineering in the 21st Century ”*, 2010, 25-26 of November - member of Organizing Committee

- *Novi Sad Algebraic conference*, NSAC 2005, Novi Sad, July 11-15, 2005 - member of Programme Committee.
- *Developments in Language Theory*, 8th International Conference, DLT 2004, Auckland, New Zealand, 13-17 December 2004, Proceedings, Series: Lecture Notes in Computer Science, Vol. 3340, Calude, Cristian S.; Calude, Elena; Dinneen, Michael J. (Eds.) 2005, XI, 431p - reviewer
- *Discrete Mathematics and Theoretical Computer Science*, 4th International Conference, DMTCS 2003, Dijon, France, 7-12 July 2003, Proceedings, Series: Lecture Notes in Computer Science, Vol. 2731, Calude, Cristian S.; Dinneen, Michael J. Vajnozovski, V (Eds.), 2003, 300p - member of Programme Committee and reviewer
- *Algebra, Logic and Discrete Mathematics*, Niš, April 14-16, 1995- member of Organizing Committee

Invited talks

- M. N. Hounkonnou, M. J. Landalidji, M. Mitrović: *Hamiltonian Dynamics in Alcubierre and Godel Metrics: Recursion operators and underlying master symmetries*, 3rd International Conference on INTEGRABLE SYSTEMS & NONLINEAR DYNAMICS, Yaroslavl, Russia, October 04-08, 2021
- M. Mitrović, M. N. Hounkonnou, M. A. Baroni, E. Darpö, D. A. Romano: *Constructive semigroups with apartness: the theory development and applications*, ACaCS 2021, 6-8 September 2021, Niš
- M. A. Baroni, M. Mitrović, M. N. Hounkonnou: *Positive weak co-quasiorders on semigroups (with apartness)*, ACaCS 2021, 6-8 September 2021, Niš
- E. Darpö, M. Mitrović: *The co-transitive kernel of a relation in constructive semigroup theory*, ACaCS 2021, 6-8 September 2021, Niš
- M. Mitrović, D. A. Romano, M. N. Hounkonnou: *Galois like connections for constructive sets with apartness*, CaCNAS:FA 2021, June 30–July 2, Niš
- M. N. Hounkonnou, B. H. Degbedji: *f-generalized Witt algebras*, CaCNAS:FA 2021, June 30 – July 2, Niš.
- M. Mitrović, D. A. Romano, M. N. Hounkonnou: *Constructive semigroup with apartness: the state of the art*, MS²A²M 2021, 24-26 May, 2021, Niš

- M. N. Hounkonnou, M. Mitrović: *Problematic of mathematics and social sciences: an ubiquitous constructive interaction in algebraic modeling*, MS²A²M 2021, 24-26 May, 2021, Niš
- M. N. Hounkonnou, M. J. Landalidji, M. Mitrović: *Noncommutative Kepler Dynamics: symmetry groups and bi-Hamiltonian structures*, 2nd International Conference on INTEGRABLE SYSTEMS & NONLINEAR DYNAMICS, Yaroslavl, Russia, October 19-24, 2020
- M. Mitrović, *Basic algebraic structures with apartness*, MAM workshop on Algebraic Structures, November 29, 2018, MDH, Vasteras, Sweden
- M. Mitrović, *Periodic semigroups which are decomposable into semilattices of (hereditary) archimedean semigroups*, EMMI-AAA 2018 International workshop „Engineering Mathematics and Mathematics in Industry – Algebra, Analysis and Applications, May 30, 2018, MDH, Vasteras, Sweden
- M. Mitrović, S. Crvenković: *Semigroup with apartness*, In occasion of 70th anniversary of the Mathematical Institute of the Serbian Academy of Sciences and Arts, 12-13 May 2016, Belgrade
- M. Mitrović, S. Crvenković, D. A. Romano: *Semigroup with apartness: constructive versions of some classical theorems*, Annual Iranian Mathematics Conference AIMC 46, 25-38 August 2015, Yazd, Iran

Participant

- Mahougnon Justin Landalidji, Mahouton Norbert Hounkonnou, and Melanija Mitrović: *Conformal fractional Poisson algebra on a Minkowski phase space: induced infinitesimal Noether symmetry and recursion operator*, CaCNAS:FA 2021
- M. Mitrović, Serbian Artificial Intelligence Meeting, December 18, 2020, Belgrade
- M. N. Hounkonnou, M. Mitrović: *Mathematics for Human Flourishin in the time of Covid-19 and Post Covid-19*, The 5th International Conference Mechanical Engineering in XXI Century, MASING 2020, December 9-10, 2020
- S. Rosić, M. Mitrović, D. Stamenković: *Determining the Risk Acceptance Criteria for Operational Changes in the Railway System Using the “Safety II” Principle*, XIX Scientific-Expert Conference on Railways RAILCON’20, October 15-16, 2020, Niš, Serbia

- M. Mitrović, M. N. Hounkonnou, M. A. Baroni: *Constructive HMR-order theory for semigroups with apartness*, 9th International Conference Logic and Applications LAP 2020, Dubrovnik, Croatia, September 21-25, 2020
- M. Mitrović, S. Silvestrov: *Semilattice decompositions of semigroups: from the theory to applications*, Swedish Network for Algebra and Geometry, SNAG 2019, BTH, October 17-18, 2019, Karlskrona, Sweden
- M. Mitrović, S. Silvestrov: *Semilattice decompositions of semigroups: from the theory to applications*, SPAS 2019, MDH, Vasteras, 2019, September 30 - October 2, Sweden.
- M. Mitrović, S. Crvenković, D. A. Romano, *Constructive Semigroups with Apartness: (Development of) a New Algebraic Theory*, Konferencija posvećena 70. rođendanu profesora Žarka Mijajlovića, November 16-17, 2018, Beograd
- M. Mitrović, S. Silvestrov: *On basic constructive algebraic structures with apartness*, 7th International Conference Logic and Applications LAP 2018, Dubrovnik, Croatia, September 24-28, 2018
- M. Mitrović: *Constructive semigroups with apartness – (development of) a new algebraic theory*, The Group Theoretical Methods in Physics – Group 32, Czech Technical University, Prague, Czech Republic, July 9-13, 2018
- M. Mitrović, S. Crvenković, B. Ranđelović: *Constructive Semigroups with Apartness: Foundations of the Order Theory - II*, The Fourth International Conference “Mechanical Engineering in the 21st Century”, Niš, April 19-20, 2018
- M. Mitrović, S. Crvenković, B. Ranđelović: *Constructive Semigroups with Apartness: Foundations and Possible Applications*, SPAS 2017, Malardalen University and Stockholm University, Vasteras, Stockholm, 2017, October 4-6, Sweden
- M. Mitrović, S. Crvenković, B. Ranđelović: *Constructive Semigroups with Apartness: Foundations of the Order Theory*, 6th International Conference Logic and Applications LAP 2017, Dubrovnik, Croatia, September 18-22, 2017
- M. Mitrović, S. Crvenković, D. A. Romano: *Constructive semigroups with apartness – a new algebraic theory*, AAA94+NSAC 2017 – Semigroups, Novi Sad, Serbia, June 15-18, 2017
- M. Mitrović, S. Crvenković, D. A. Romano: *Constructive semigroups*, Workshop “Semigroups and Applications”, Uppsala, August 31- September 2, 2012
- S. Crvenković, M. Mitrović, D. A. Romano: *Constructive semigroups – (one of) the meeting point of constructive analysis and constructive topology*, Workshop “Analysis and Topology Meet Algebra”, ATA, Sombor, 25-27 May, 2012

- M. Mitrović: *Some Results on Hereditariness of Semigroups*, Algebra e Informatica Teorica, Siena, July 5-6, 2004
- M. Mitrović: *Local Properties of π -regular Semigroups*, International Meeting on Semigroup Theory and Related Topics, University of Minho, Braga, Portugal, June 25-28, 2003
- M. Mitrović: *π -regular Semigroups with Green Majorization*, International Algebraic Conference in the occasion of 250 anniversary of the Moscow State University and 75 anniversary of Department of Mechanics and Mathematics, Moscow State University, Moscow, May 26 – June 2, 2004
- M. Mitrović: *Classes of Semigroups Defined via Properties of Regular Parts of Their Subsemigroups*, Workshop on Semigroups and Languages, University of Lisbon, Lisbon, Portugal, November 27-29, 2002
- M. Mitrović: *Regular Parts and Hereditary Properties of Semigroups*, Filomat, Niš, August 26-30, 2001
- M. Mitrović: *π -semisimple and Left Quasi π -regular Semigroups*, Colloquium on Semigroups, Szeged, Hungary, July 17-21, 2000
- M. Mitrović, S. Bogdanović, M. Ćirić: *Iteration of Matrix Decomposition*, Words, Languages and Combinatorics, Kyoto, Japan, March 14-18, 2000
- M. Mitrović: *Matrices of l_n -archimedean Semigroups*, X Kongres matematičara Jugoslavije, January 21-24, 2000
- M. Mitrović, S. Bogdanović, M. Ćirić: *Locally Right π -inverse Semigroups*, Algebra i Logika - Konferencija posvećena 65. rođjendanu prof. dr Svetozara Milića, Novi Sad, September 21-22, 1999
- M. Mitrović, S. Bogdanović, M. Ćirić: *Semigroups Which Local Submonoids Have Certain Properties*, International Conference of Semigroups, Braga, Portugal, June 18-23, 1999
- S. Bogdanović, M. Ćirić, M. Mitrović: *Semilattices of Archimedean Semigroups and π -regular Semigroups*, Semigroups and Applications, St. Andrews, Scotland, July 2-8, 1997.
- S. Bogdanović, M. Ćirić, M. Mitrović: *Semilattices of Hereditary l_n -Archimedean Semigroups*, Matematička konferencija, Priština, September 25-27, 1996
- S. Bogdanović, M. Ćirić, M. Mitrović: *Semilattices of l_n -Archimedean semigroups*, 9th Congress of Yugoslav Mathematicians, Petrovac, May 22-27, 1995
- S. Bogdanović, M. Ćirić, M. Mitrović: *Semigroups whose Subsemigroups are Semilattices of Archimedean Semigroups*, Algebra, Logic and Discrete Mathematics, Niš, April 14-16, 1995

- M. Mitrović: $(3; 2; 4)$ -tight Semigroups, Algebarske Strukture i Primene, Beograd, May 1994

8. TEACHING

University of Niš, Faculty of Mechanical Engineering, Department of Mathematics and Informatics

- Bachelor Level: Calculus 1, Calculus 2, Descriptive Geometry, Engineering Statistics, Business Statistics
- Master Level: Calculus 3
- Doctoral level: Probability and Statistics, Algebraic Engineering

Mälardalen University, Sweden - Visiting Professor (2017/2018)

- Doctoral level: Algebraic theory of semigroups

Member of the PhD defending committee

- Fridolin Melong, *Characterization of Witt, Witt n -algebras, Virasoro algebras, conformal Virasoro algebras and KdV equations from $R(p; q)$ -deformed quantum algebras*, International Chair in Mathematical Physics and Applications (ICMPA-UNESCO Chair), University Abomey-Calavi, Benin, November 13, 2020
- John Musonda, *Reordering in Noncommutative Algebras, Orthogonal Polynomials and Operators*, Mälardalen University, School of Education, Culture and Communication; Vasteras, Sweden, 2018.
- Alex Behakanira Tumwesigye, *Dynamical Systems and Commutants in Non-Commutative Algebras* Mälardalen University, School of Education, Culture and Communication; Vasteras, Sweden, 2018.
- S. Petrović, *Development of model of maintenance system by applying simulation*, University of Niš, Faculty of Mechanical Engineering Niš, Serbia, 2018.
- D. Radojković, *Model of a risk management in auto-insurance*, University of Niš, Faculty of Mechanical Engineering Niš, Serbia, 2016.
- N. Stevanović, *Groupoids with Abel-Grassman's law*, University of Niš, Faculty of Sciences and Mathematics, 2006.

9. SERVICES TO THE UNIVERSITY COMMUNITY

Member of the Faculty governing bodies, working committees and boards

- Member of the Faculty Council (since 2015)
- Deputy Vicehead of the Department of Mathematics and Informatics (2005-2010)
- Quality Board
- Committee for the Student Evaluation of Educational Quality (2009-2015)
- Committee for the Accreditation of the new study programme in Engineering Management (in the period from 2011 to 2012)

Society Memberships

- Board of the Serbian Society of Logic
- Serbian Mathematical Society
- Center for Advanced Mathematical Models in Informational Technologies, Mathematical Institute SASA, Belgrade
- Member of the International Scientific Committee of the Center for Data Research and Bioinformatics, University of Belgrade – Faculty of Agriculture, CIPB
- A member of the Prize Jury of the Serbian Prize of Logic for 2021 (a part of the project A PRIZE OF LOGIC IN EVERY COUNTRY and the World Logic Prizes Contest –
<http://www.uni-log.org/logic-prize-world> and
<https://sites.google.com/view/unilog-2022/logic-prizes?authuser=0>