

## [Popa Mihail](#)

Articole în reviste din RM - **16**. Publicații la conferințe din RM - **11**. Publicații peste hotare - **3**.  
Publicații indexate în SCOPUS - **5**. Teze/Rezumate în culegeri - **6**.

**2023 - 5**

### **A Lie algebra of a differential generalized Fitz Hugh-Nagumo system**

*Popa Mihail<sup>1</sup>, Georgescu Adelina<sup>2</sup>, Rocsoreanu Carmen<sup>3</sup>*

<sup>1</sup> Institute of Mathematics and Computer Science ASM,

<sup>2</sup> University of Pitesti,

<sup>3</sup> University of Craiova

### **Buletinul Academiei de Științe a Republicii Moldova. Matematica**

Nr. 1(41) / 2003 / ISSN 1024-7696 / ISSN<sub>e</sub> 2587-4322

Disponibil online 13 December, 2013. Descarcări-3. Vizualizări-894

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### **Lie algebras of the operators and three-dimensional polynomial differential systems**

*Gherștega Natalia<sup>1</sup>, Popa Mihail<sup>2</sup>*

<sup>1</sup> Tiraspol State University,

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### **Buletinul Academiei de Științe a Republicii Moldova. Matematica**

Nr. 2(48) / 2005 / ISSN 1024-7696 / ISSN<sub>e</sub> 2587-4322

Disponibil online 7 December, 2013. Descarcări-5. Vizualizări-1014

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### **Methods of lie algebras and orbits in the study of differential systems concerned with the problems of energy safety of the Republic of Moldova**

*Popa Mihail<sup>1</sup>, Bycova Elena V.<sup>2</sup>, Staruș Elena<sup>1</sup>, Gherștega Natalia<sup>3</sup>*

<sup>1</sup> Institute of Mathematics and Computer Science ASM,

<sup>2</sup> Institute of Power Engineering of ASM,

<sup>3</sup> Tiraspol State University

### **Energetica Moldovei. Aspecte regionale de dezvoltare**

Nr. VIII / 2007 / ISSN 1857-0631

Disponibil online 31 July, 2018. Descarcări-3. Vizualizări-838

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### **Lie algebras of operators and invariant $GL(2, \mathbb{R})$ -integrals for Darboux type differential systems**

*Diaconescu Oxana, Popa Mihail*

Institute of Mathematics and Computer Science ASM

### **Buletinul Academiei de Științe a Republicii Moldova. Matematica**

Nr. 3(52) / 2006 / ISSN 1024-7696 / ISSN<sub>e</sub> 2587-4322

Disponibil online 18 December, 2015. Descarcări-1. Vizualizări-908

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### **Classification of $GL(2, \mathbb{R})$ -orbit's dimensions for the differential equations' system with homogeneities of the 4th order**

*Naidenova Elena, Popa Mihail, Orlov Victor*

Institute of Mathematics and Computer Science ASM

**Buletinul Academiei de Științe a Republicii Moldova. Matematica**

Nr. 1(53) / 2007 / ISSN 1024-7696 / ISSN<sub>e</sub> 2587-4322

Disponibil online 16 December, 2013. Descarcări-0. Vizualizări-1052

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**2022 - 3**

**About characteristics of graded algebras  $S_{1,4}$  and  $SI_{1,4}$**

*Gherștega Natalia, Popa Mihail, Pricop Victor*

Institute of Mathematics and Computer Science ASM

**Buletinul Academiei de Științe a Republicii Moldova. Matematica**

Nr. 1(62) / 2010 / ISSN 1024-7696 / ISSN<sub>e</sub> 2587-4322

Disponibil online 15 December, 2013. Descarcări-1. Vizualizări-996

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**Generators of the algebras of invariants for differential system with homogeneous nonlinearities of odd degree**

*Gherștega Natalia, Popa Mihail, Pricop Victor*

Institute of Mathematics and Computer Science ASM

**Buletinul Academiei de Științe a Republicii Moldova. Matematica**

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Disponibil online 15 December, 2013. Descarcări-0. Vizualizări-1188

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**Applications of algebraic methods in solving the center-focus problem**

*Popa Mihail, Pricop Victor*

Institute of Mathematics and Computer Science ASM

**Buletinul Academiei de Științe a Republicii Moldova. Matematica**

Nr. 1(71) / 2013 / ISSN 1024-7696 / ISSN<sub>e</sub> 2587-4322

Disponibil online 15 December, 2013. Descarcări-6. Vizualizări-1067

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**2021 - 4**

**First integrals with polynomials not higher than second order of the mathematical model of the intrinsic transmission dynamics of tuberculosis**

*Neagu Natalia<sup>1</sup>, Popa Mihail<sup>2</sup>, Orlov Victor<sup>2,3</sup>*

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**Conference of Mathematical Society of the Republic of Moldova**

// ISSN -

Disponibil online 9 October, 2017. Descarcări-3. Vizualizări-1275

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**The upper and lower bounds for number of conditions for center of the differential system  $s(1; 2; :::; q)$**

*Popa Mihail<sup>1</sup>, Pricop Victor<sup>1,2</sup>*

<sup>1</sup> Institute of Mathematics and Computer Science ASM,

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**Conference of Mathematical Society of the Republic of Moldova**

// ISSN -

Disponibil online 9 October, 2017. Descarcări-0. Vizualizări-944

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### **Algebraic methods to the center-focus problem**

*Popa Mihail<sup>1</sup>, Pricop Victor<sup>2</sup>*

<sup>1</sup> Institute of Mathematics and Computer Science ASM,

<sup>2</sup> "Ion Creangă" State Pedagogical University from Chisinau

### **Învățământul superior din Republica Moldova la 85 de ani Probleme actuale ale științelor exacte și ale naturii**

Nr. 5(317) / 2010 / ISSN 1875-0666

Disponibil online 24 July, 2019. Descarcări-0. Vizualizări-571

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### **Prolonged holding and cyclic loading indentation of aluminophosphate glass: kinetics of deformation**

*Răzlog (Belei) Ina<sup>1</sup>, Șikimaka Olga<sup>1</sup>, Grabco Daria<sup>1</sup>, Sava Bogdan Alexandru<sup>2</sup>, Boroica Lucica<sup>2</sup>, Elișa Mihail<sup>3</sup>, Pyrtsac Constantin<sup>1</sup>, Prisăcaru Andrian<sup>1</sup>, Popa Mihail<sup>1</sup>*

<sup>1</sup> Institute of Applied Physics, Academy of Sciences of Moldova,

<sup>2</sup> National Institute for Laser, Plasma and Radiation Physics (INFLPR),

<sup>3</sup> National Institute for Optoelectronics INOE2000, Magurele

### **Materials Science and Condensed Matter Physics**

Nr. 3(4) / 2005 / ISSN 1810-648X / ISSNe 2537-6365

Disponibil online 30 July, 2019. Descarcări-2. Vizualizări-711

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## **2020 - 2**

### **Invariant conditions of stability of unperturbed motion for differential systems with quadratic nonlinearities in the critical case**

*Neagu Natalia<sup>1,2</sup>, Orlov Victor<sup>3</sup>, Popa Mihail<sup>4</sup>*

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### **Conference of Mathematical Society of the Republic of Moldova**

// ISSN -

Disponibil online 5 October, 2017. Descarcări-1. Vizualizări-1097

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### **Invariant conditions of stability of unperturbed motion governed by some differential systems in the plane**

*Neagu Natalia<sup>1</sup>, Orlov Victor<sup>2,3</sup>, Popa Mihail<sup>3</sup>*

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### **Buletinul Academiei de Științe a Republicii Moldova. Matematica**

Nr. 3(85) / 2017 / ISSN 1024-7696 / ISSNe 2587-4322

Disponibil online 10 February, 2018. Descarcări-4. Vizualizări-874

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## 2019 - 4

### **On periodic solutions of the four-dimensional differential system of Lyapunov-Darboux type with quadratic nonlinearities**

*Orlov Victor<sup>12</sup>, Popa Mihail<sup>2</sup>*

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#### **Conference of Mathematical Society of the Republic of Moldova**

// ISSN -

Disponibil online 5 October, 2017. Descarcări-2. Vizualizări-773

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### **Invariant conditions of stability of unperturbed motion described by cubic differential system with quadratic part of Darboux type**

*Neagu Natalia<sup>12</sup>, Orlov Victor<sup>34</sup>, Popa Mihail<sup>3</sup>*

<sup>1</sup> Tiraspol State University,

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#### **Conference on Applied and Industrial Mathematics CAIM 2018**

Nr. 2(72) / 2014 / ISSN 1857-2073 / ISSNe 2345-1033

Disponibil online 31 May, 2022. Descarcări-2. Vizualizări-280

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### **The center-focus problem: algebraic solutions and Hypotheses:**

*Popa Mihail, Pricop Victor*

<sup>1</sup> Institutul de Matematică și Informatică al AȘM,

Chișinău, 2018 / ISBN 978-9975-62-416-9

Disponibil online 26 January, 2024. Descarcări-1. Vizualizări-41

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### **Проблемы центра и фокуса: алгебраические решения и гипотезы:**

*Popa Mihail, Pricop Victor*

<sup>1</sup> Institutul de Matematică și Informatică al AȘM,

Chișinău, 2018 / ISBN 978-9975-62-416-9

Disponibil online 26 January, 2024. Descarcări-1. Vizualizări-41

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## 2018 - 2

### **Center-affine invariant stability conditions of unperturbed motion governed by critical cubic differential system**

*Neagu Natalia<sup>12</sup>, Orlov Victor<sup>34</sup>, Popa Mihail<sup>41</sup>*

<sup>1</sup> Tiraspol State University,

<sup>2</sup> "Ion Creangă" State Pedagogical University from Chisinau,

<sup>3</sup> Technical University of Moldova,

<sup>4</sup> Vladimir Andrunachievici Institute of Mathematics and Computer Science

#### **Proceedings IMCS-55The Fifth Conference of Mathematical Society of the Republic of Moldova**

Nr. 1(47) / 2005 / ISSN 1024-7696 / ISSNe 2587-4322

Disponibil online 1 November, 2019. Descarcări-2. Vizualizări-660

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**Invariant conditions of stability of unperturbed motion governed by critical differential systems s(1, 2, 3)**

*Neagu Natalia<sup>1</sup>, Orlov Victor<sup>1,2</sup>, Popa Mihail<sup>2</sup>*

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<sup>2</sup> Vladimir Andrunachievici Institute of Mathematics and Computer Science

**Buletinul Academiei de Științe a Republicii Moldova. Matematica**

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Disponibil online 4 January, 2020. Descarcări-1. Vizualizări-953

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**2017 - 3**

**On a case of stability of unperturbed motion governed by the ternary differential critical system with quadratic nonlinearities**

*Neagu Natalia<sup>1</sup>, Popa Mihail<sup>2,3</sup>*

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<sup>3</sup> Tiraspol State University

**Acta et commentationes (Științe Exacte și ale Naturii)**

Nr. 2(8) / 2019 / ISSN 2537-6284 / ISSN<sub>e</sub> 2587-3644

Disponibil online 29 January, 2020. Descarcări-0. Vizualizări-792

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**On the upper bound of the number of functionally independent focal quantities of the Lyapunov differential system**

*Popa Mihail, Pricop Victor*

Vladimir Andrunachievici Institute of Mathematics and Computer Science

**Buletinul Academiei de Științe a Republicii Moldova. Matematica**

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Disponibil online 3 January, 2020. Descarcări-1. Vizualizări-619

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**About an algebraic vision on the center and focus problem**

*Popa Mihail<sup>1</sup>, Pricop Victor<sup>2</sup>*

<sup>1</sup> Vladimir Andrunachievici Institute of Mathematics and Computer Science,

<sup>2</sup> "Ion Creangă" State Pedagogical University from Chisinau

**Сучасні проблеми диференціальних рівнянь та їх застосування Матеріали міжнародної наукової конференції, присвяченої 100-річчю від дня народження професора С.Д. Ейдельмана**

Nr. 2(16) / 2016 / ISSN 1875-2723

Disponibil online 24 November, 2023. Descarcări-0. Vizualizări-119

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**2016 - 1**

**Comitants of Lie algebra of rotation groups for ternary system with quadratic nonlinearities**

*Popa Mihail<sup>1</sup>, Pricop Victor<sup>2</sup>*

<sup>1</sup> Vladimir Andrunachievici Institute of Mathematics and Computer Science,

<sup>2</sup> "Ion Creangă" State Pedagogical University from Chisinau

# Învățământ superior: tradiții, valori, perspective Științe Exacte și ale Naturii și Didactica Științelor Exacte și ale Naturii

Nr. 2 / 2011 / ISSN 1857-0046

Disponibil online 20 November, 2020. Descarcări-2. Vizualizări-566

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## 2015 - 1



### **Four-dimensional reductive Lie algebra for the ternary differential system with quadratic nonlinearities and its perspectives in the study of this system**

*Popa Mihail<sup>1</sup>, Pricop Victor<sup>2</sup>*

<sup>1</sup> Vladimir Andrunachievici Institute of Mathematics and Computer Science,

<sup>2</sup> "Ion Creangă" State Pedagogical University from Chisinau

### **Actual Problems of Mathematics and Informatics**

Nr. 8/1(260) / 2013 / ISSN 1810-3081

Disponibil online 25 June, 2021. Descarcări-3. Vizualizări-369

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## 2014 - 2

### **Lyapunov's stability of the unperturbed motion governed by the $s_3(1,3)$ differential system of Darboux type**

*Neagu Natalia<sup>1</sup>, Popa Mihail<sup>2,3</sup>*

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### **Acta et commentationes (Științe Exacte și ale Naturii)**

Nr. 2(12) / 2021 / ISSN 2537-6284 / ISSNe 2587-3644

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### **Stability conditions of unperturbed motion governed by critical three-dimensional differential system of Darboux type with cubic nonlinearities**

*Neagu Natalia<sup>1</sup>, Popa Mihail<sup>2,3</sup>*

<sup>1</sup> "Ion Creangă" State Pedagogical University from Chisinau,

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### **Mathematics and Information Technologies: Research and Education**

Nr. 8/3(260) / 2013 / ISSN 1810-3081

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## 2013 - 1

### **Stability conditions of unperturbed motion governed by critical three-dimensional differential system of Darboux type $s_3(1; 2; 3)$**

*Neagu Natalia<sup>1</sup>, Popa Mihail<sup>2,3</sup>*

<sup>1</sup> "Ion Creangă" State Pedagogical University from Chisinau,

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## **Conference on Applied and Industrial Mathematics CAIM 2021**

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Disponibil online 20 September, 2022. Descarcări-0. Vizualizări-240

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### **2012 - 1**

#### **Problems of the theory of invariants and Lie algebras applied in the qualitative theory of differential systems**

*Popa Mihail*

Vladimir Andrunachievici Institute of Mathematics and Computer Science

#### **Acta et commentationes (Științe Exacte și ale Naturii)**

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### **2010 - 1**

#### **Stability of unperturbed motion governed by the ternary differential system of Lyapunov-Darboux type with nonlinearities of degree four**

*Neagu Natalia<sup>1</sup>, Popa Mihail<sup>2</sup>, Orlov Victor<sup>3</sup>*

<sup>1</sup> "Ion Creangă" State Pedagogical University from Chisinau,

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### **2007 - 1**

#### **Stability problems of the unperturbed motion governed by the ternary differential system of Lyapunov-Darboux type with nonlinearities of degree four**

*Neagu Natalia<sup>1</sup>, Popa Mihail<sup>2,3</sup>*

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<sup>2</sup> Tiraspol State University,

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## **Conference on Applied and Industrial Mathematics CAIM 2022**

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Disponibil online 19 December, 2022. Descarcări-2. Vizualizări-294

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### **2006 - 1**

#### **Differential equations and algebras**

*Popa Mihail<sup>1,2</sup>*

<sup>1</sup> Vladimir Andrunachievici Institute of Mathematics and Computer Science,

<sup>2</sup> "Ion Creangă" State Pedagogical University from Chisinau

#### **Science and education: new approaches and perspectives. Selective collection of abstracts**

Nr. 10(100) / 2016 / ISSN 1811-2668 / ISSNe 2345-1009

## 2005 - 2

### **Differential Equations and Algebras**

*Popa Mihail<sup>12</sup>*

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<sup>2</sup> "Ion Creangă" State Pedagogical University from Chisinau

### **Conference on Applied and Industrial Mathematics CAIM 2022**

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Disponibil online 21 March, 2024. Descarcări-1. Vizualizări-130

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### **On stability of some examples of ternary differential critical systems with quadratic nonlinearities**

*Neagu Natalia<sup>1</sup>, Popa Mihail<sup>2</sup>*

<sup>1</sup> "Ion Creangă" State Pedagogical University from Chisinau,

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### **Acta et commentationes (Științe Exacte și ale Naturii)**

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## 2003 - 1

### **Professor Alexandru Subă on his 70th birthday**

*Cozma Dumitru<sup>1</sup>, Popa Mihail<sup>2</sup>*

<sup>1</sup> "Ion Creangă" State Pedagogical University from Chisinau,

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### **Stability conditions of unperturbed motion governed by critical three-dimensional differential system of darbox type with nonlinearities of degree four**

*Neagu Natalia<sup>1</sup>, Popa Mihail<sup>2</sup>*

<sup>1</sup> "Ion Creangă" State Pedagogical University from Chisinau,

<sup>2</sup> Vladimir Andrunachievici Institute of Mathematics and Computer Science, MSU

### **Mathematics and Information Technologies: Research and Education**

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