# Vakhtang Lomadze

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7824298/publications.pdf

Version: 2024-02-01

| | | | |
|---|---|---|---|
| 51 papers | 161 citations | 1478280 6 h-index | 1474057 9 g-index |

| | | | |
|---|---|---|---|
| 51 all docs | 51 docs citations | 51 times ranked | 44 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | When are linear differentiation-invariant spaces differential?. Linear Algebra and Its Applications, 2007, 424, 540-554. | 0.4 | 19 |
| 2 | Applications of vector bundles to factorization of rational matrices. Linear Algebra and Its Applications, 1999, 288, 249-258. | 0.4 | 12 |
| 3 | State and internal variables for linear systems. Linear Algebra and Its Applications, 2007, 425, 534-547. | 0.4 | 9 |
| 4 | On some basics of linear systems theory. Systems and Control Letters, 2009, 58, 83-90. | 1.3 | 8 |
| 5 | On duality for partial differential (and difference) equations. Journal of Algebra, 2004, 275, 791-800. | 0.4 | 7 |
| 6 | On the regular feedback interconnection problem. International Journal of Control, 2006, 79, 858-865. | 1.2 | 6 |
| 7 | Smooth/impulsive linear systems: Axiomatic description. Linear Algebra and Its Applications, 2010, 433, 1997-2009. | 0.4 | 6 |
| 8 | A Behavioral Approach to Singular Systems. Acta Applicandae Mathematicae, 1998, 54, 331-344. | 0.5 | 5 |
| 9 | Singular Linear Behaviors and Their AR-Representations. Mathematics of Control, Signals, and Systems, 2001, 14, 194-211. | 1.4 | 5 |
| 10 | Convolutional Codes and Coherent Sheaves. Applicable Algebra in Engineering, Communications and Computing, 2001, 12, 273-326. | 0.3 | 5 |
| 11 | Axiomatic characterization of linear differential systems (and operators). Automatica, 2012, 48, 815-819. | 3.0 | 5 |
| 12 | Duality in the behavioral systems theory. Automatica, 2013, 49, 1510-1514. | 3.0 | 5 |
| 13 | ARMA-models and their equivalences. International Journal of Control, 2009, 82, 2034-2039. | 1.2 | 4 |
| 14 | (Generalised) autoregressive models and their trajectories. International Journal of Control, 2009, 82, 1929-1936. | 1.2 | 4 |
| 15 | Singular 2D Behaviors: Fornasiniâ€“Marchesini and Givoneâ€“Roesser Models. Georgian Mathematical Journal, 2009, 16, 105-130. | 0.2 | 4 |
| 16 | Relative completeness and specifiedness properties of continuous linear dynamical systems. Systems and Control Letters, 2010, 59, 695-703. | 1.3 | 4 |
| 17 | Controllability as Minimality. SIAM Journal on Control and Optimization, 2012, 50, 357-367. | 1.1 | 4 |
| 18 | ¨Reduced Polynomial Matricesâ€•in Several Variables. SIAM Journal on Control and Optimization, 2013, 51, 3258-3273. | 1.1 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | The PBH test for multidimensional LTID systems. Automatica, 2013, 49, 2933-2937. | 3.0 | 4 |
| 20 | Linear system theory: An algebraist's point of view. Systems and Control Letters, 1996, 29, 73-79. | 1.3 | 3 |
| 21 | Linear constant coefficient differential (or difference) equations. Journal of Pure and Applied Algebra, 2000, 147, 143-157. | 0.3 | 3 |
| 22 | Fractional representations of linear systems. Systems and Control Letters, 2000, 39, 275-281. | 1.3 | 3 |
| 23 | Linear systems with locally integrable trajectories. Linear Algebra and Its Applications, 2009, 430, 2277-2289. | 0.4 | 3 |
| 24 | Linear systems, and ARMA- and Fliess models. International Journal of Control, 2010, 83, 2165-2180. | 1.2 | 3 |
| 25 | Proper representations of (multivariate) linear differential systems. Systems and Control Letters, 2016, 94, 25-30. | 1.3 | 3 |
| 26 | Converting high order linear PDEs to first order. Systems and Control Letters, 2016, 94, 107-110. | 1.3 | 3 |
| 27 | How to define the dual of a higher-dimensional linear system. Linear Algebra and Its Applications, 2009, 431, 2084-2101. | 0.4 | 2 |
| 28 | Rational differential operators and their kernels. Linear Algebra and Its Applications, 2011, 435, 2870-2888. | 0.4 | 2 |
| 29 | On Homotopy and Similarity in Linear Systems Theory. Acta Applicandae Mathematicae, 2011, 116, 87-105. | 0.5 | 2 |
| 30 | Lifting discrete trajectories. Applied Mathematics Letters, 2012, 25, 1716-1720. | 1.5 | 2 |
| 31 | A note on Ehrenpreisâ€™ fundamental principle. Linear Algebra and Its Applications, 2013, 438, 2083-2089. | 0.4 | 2 |
| 32 | Characterization of linear differential systems (in several variables). Systems and Control Letters, 2014, 68, 20-24. | 1.3 | 2 |
| 33 | Polynomial solutions to linear PDEs with constant coefficients. Georgian Mathematical Journal, 2019, 26, 287-293. | 0.2 | 2 |
| 34 | State representations of ARMA-models. International Journal of Control, 2010, 83, 2091-2097. | 1.2 | 1 |
| 35 | Smooth/impulsive linear systems: controllability. International Journal of Control, 2011, 84, 679-692. | 1.2 | 1 |
| 36 | A note on interconnections. Applied Mathematics Letters, 2011, 24, 1835-1839. | 1.5 | 1 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Behaviors and symbols of rational matrices. Systems and Control Letters, 2012, 61, 98-106. | 1.3 | 1 |
| 38 | The predictable degree property and minimality in multidimensional convolutional coding. Discrete Mathematics, 2019, 342, 784-792. | 0.4 | 1 |
| 39 | Continuous dependence of linear differential systems on polynomial modules. Mathematics of Control, Signals, and Systems, 2020, 32, 385-409. | 1.4 | 1 |
| 40 | First order representations of Fliess models. Linear Algebra and Its Applications, 2011, 434, 1027-1057. | 0.4 | 0 |
| 41 | (Singular) state models and (singular) LTID systems. International Journal of Control, 2014, 87, 567-580. | 1.2 | 0 |
| 42 | Addendum to â€˜(Singular) state models and (singular) LTID systemsâ€™. International Journal of Control, 2014, 87, 1312-1315. | 1.2 | 0 |
| 43 | Taylor approximations of multidimensional linear differential systems. International Journal of Control, 2016, 89, 1091-1095. | 1.2 | 0 |
| 44 | On the reduction of high order linear PDEs to first order. Linear Algebra and Its Applications, 2017, 530, 1-14. | 0.4 | 0 |
| 45 | Converting high order linear PDEs to first order: Noncommutative case. Systems and Control Letters, 2017, 109, 49-52. | 1.3 | 0 |
| 46 | KW Models for (Multivariate) Linear Differential Systems. SIAM Journal on Control and Optimization, 2018, 56, 456-472. | 1.1 | 0 |
| 47 | On the Wienerâ€“Hopf factorization of rational matrices. Transactions of A Razmadze Mathematical Institute, 2018, 172, 73-81. | 0.7 | 0 |
| 48 | Non-catastrophicity in multidimensional convolutional coding. Discrete Mathematics, 2020, 343, 111789. | 0.4 | 0 |
| 49 | Duality for Multidimensional Linear Systems with Homological Dimension $leq 1$. SIAM Journal on Control and Optimization, 2021, 59, 417-433. | 1.1 | 0 |
| 50 | Continuity of the solution set to a linear PDE with constant coefficients. International Journal of Control, 0, , 1-5. | 1.2 | 0 |
| 51 | Differential equations defined by (convergent) Laurent series. Journal of Algebra and Its Applications, 0, , . | 0.3 | 0 |