

### **Adjoint polynomial formulas for nonlinear state-space realization**

**Belikov, Juri; Kotta, Ülle; Tönso, Maris** IEEE transactions on automatic control 2014 / p. 256-261

<https://doi.org/10.1109/TAC.2013.2270868> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Degree of Dieudonne determinant defines the order of nonlinear system**

**Kotta, Ülle; Belikov, Juri; Halas, Miroslav; Leibak, Alar** International journal of control 2019 / p. 518-527

<https://doi.org/10.1080/00207179.2017.1361042> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Extended observer form : simple existence conditions**

**Kaparin, Vadim; Kotta, Ülle; Mullari, Tanel** International journal of control 2013 / p. 794-803 : ill

<https://doi.org/10.1080/00207179.2012.760048> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Extended observer form with vector fields**

**Mullari, Tanel; Kotta, Ülle; Kaldmäe, Arvo; Kaparin, Vadim; Simha, Ashutosh** International journal of control 2024 / p. 2399 - 2412

<https://doi.org/10.1080/00207179.2023.2274060> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Forward and backward shifts of vector fields : towards the dual algebraic framework**

**Mullari, Tanel; Kotta, Ülle; Bartosiewicz, Zbigniew; Pawluszewicz, Ewa; Moog, Claude** IEEE transactions on automatic control 2017 / p. 3029-3033

<https://doi.org/10.1109/TAC.2016.2608718> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Further results on identifiability of discrete-time nonlinear systems**

**Nömm, Sven; Moog, Claude** Automatica 2016 / p. 69-74 : ill

<https://doi.org/10.1016/j.automatica.2016.01.054> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Linearization by input-output injections on homogeneous time scales**

**Ciulkin, Monika; Kaparin, Vadim; Kotta, Ülle; Pawluszewicz, Ewa** Proceedings of the Estonian Academy of Sciences 2014 / p. 387-397

[https://artiklid.elnet.ee/record=b2707375\\*est](https://artiklid.elnet.ee/record=b2707375*est) <https://doi.org/10.3176/proc.2014.4.04> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Observable space of the nonlinear control system on a homogeneous time scale**

**Kaparin, Vadim; Kotta, Ülle; Wyrwas, Małgorzata** Proceedings of the Estonian Academy of Sciences 2014 / p. 11-25

[https://artiklid.elnet.ee/record=b2665198\\*est](https://artiklid.elnet.ee/record=b2665198*est) <https://doi.org/10.3176/proc.2014.1.04> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **On the finiteness of accessibility test for nonlinear discrete-time systems**

**Sarafrazi, Mohammad Amin; Pawluszewicz, Ewa; Bartosiewicz, Zbigniew; Kotta, Ülle** International journal of control 2021 / p. 2330-2336

<https://doi.org/10.1080/00207179.2019.1706102> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **On the properties of forward and backward shifts of vector fields**

**Kaldmäe, Arvo; Kaparin, Vadim; Kotta, Ülle; Mullari, Tanel; Pawluszewicz, Ewa** Proceedings of the Estonian Academy of Sciences 2022 / p. 314-325

<https://doi.org/10.3176/proc.2022.4.02> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Relaxing realizability conditions for discrete-time nonlinear systems**

**Kotta, Ülle; Schlahter, Kurt; Tönso, Maris** Automatica 2015 / p. 67-71

<http://dx.doi.org/10.1016/j.automatica.2015.05.007>

### **Transfer matrix and its Jacobson form for nonlinear systems on time scales : mathematica implementation**

**Belikov, Juri; Kotta, Ülle; Leibak, Alar** Full Papers : 18th International Conference on Process Control '11 : June 14-17, 2011, Tatransk Lomnica, Slovakia 2011 / p. 141-146

### **Transformation of nonlinear discrete-time state equations into the observer form : extension to non-reversible case**

**Mullari, Tanel; Kotta, Ülle** Proceedings of the Estonian Academy of Sciences 2021 / p. 235-247

<https://doi.org/10.3176/proc.2021.3.03> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Transformation of nonlinear discrete-time state equations into the observer form : revision**

**Mullari, Tanel; Kotta, Ülle** Proceedings of the Estonian Academy of Sciences 2023 / p. 1-5

<https://doi.org/10.3176/proc.2023.1.01> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Transformation of nonlinear discrete-time system into the extended observer form**

**Kaparin, Vadim; Kotta, Ülle** International journal of control 2018 / p. 848-858

<https://doi.org/10.1080/00207179.2017.1294264> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Transformation of nonlinear MIMO discrete-time systems into the extended observer form**

**Kaparin, Vadim; Kotta, Ülle** Asian journal of control 2019 / p. 2208–2217 : ill <https://doi.org/10.1002/asjc.1824> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Transformation of nonlinear state equations into the observer form : necessary and sufficient conditions in terms of one-forms**

**Kaparin, Vadim; Kotta, Ülle** Kybernetika 2015 / p. 36-58 <http://dx.doi.org/10.14736/kyb-2015-1-0036>