

Accessibility and system reduction of nonlinear time-delay control systems

Bartosiewicz, Zbigniew; Kaldmäe, Arvo; Kawano, Yu; Kotta, Ülle; Pawluszewicz, Ewa; Simha, Ashutosh; Wyrwas, Małgorzata
IEEE Transactions on Automatic Control 2021 / p. 3781–3788 <https://doi.org/10.1109/TAC.2020.3028566> [Journal metrics at Scopus](#)
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Comments on "PBH tests for nonlinear systems"

Sarafrazi, Mohammad Amin; Bartosiewicz, Zbigniew; Kotta, Ülle Automatica 2020 / art. 108617
<https://doi.org/10.1016/j.automatica.2019.108617> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparison of LPV and nonlinear system theory : a realization problem

Belikov, Juri; Kotta, Ülle; Tönso, Maris Systems & control letters 2014 / p. 72-78 <https://doi.org/10.1016/j.sysconle.2013.10.009>
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Computational intelligence methods based design of closed-loop system

Belikov, Juri; Petlenkov, Eduard; Vassiljeva, Kristina; Nömm, Sven Neural information processing : 20th International Conference, ICONIP 2013, Daegu, Korea, November 3-7, 2013 : proceedings. Part I 2013 / p. 215-224 : ill https://doi.org/10.1007/978-3-642-42054-2_28 [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Disturbance decoupling by measurement feedback : sensor location

Kaldmäe, Arvo; Kotta, Ülle; Shumsky, Alexey; Zhirabok, Alexey Proceedings of the Estonian Academy of Sciences 2016 / p. 317-329 : ill <https://doi.org/10.3176/proc.2016.4.05> https://artiklid.elnet.ee/record=b2808632*est [Journal metrics at Scopus](#) [Article at Scopus](#)
[Journal metrics at WOS](#) [Article at WOS](#)

Disturbance decoupling of multi-input multi-output discrete-time nonlinear systems by static measurement feedback

Kaldmäe, Arvo; Kotta, Ülle Proceedings of the Estonian Academy of Sciences 2012 / p. 77-88
https://artiklid.elnet.ee/record=b2497319*est

Disturbance decoupling of time delay systems

Kaldmäe, Arvo; Moog, Claude Asian journal of control 2016 / p. 1130-1134 <https://doi.org/10.1002/asjc.1169> [Journal metrics at Scopus](#)
[Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Faulty plant reconfiguration by measurement feedback: Sensor location

Kaldmäe, Arvo; Kotta, Ülle; Shumsky, Alexey; Zhirabok, Alexey IFAC-PapersOnLine 2015 / p. 1283-1288 : ill
<https://doi.org/10.1016/j.ifacol.2015.09.702> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Feedback linearization of possibly non-smooth systems

Kaldmäe, Arvo; Kotta, Ülle; Shumsky, Alexey; Zhirabok, Alexey Proceedings of the Estonian Academy of Sciences 2017 / p. 109-123 <https://doi.org/10.3176/proc.2017.2.01> http://www.ester.ee/record=b2355998*est https://artiklid.elnet.ee/record=b2820923*est [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Finite determination of accessibility and singular points of nonlinear systems: an algebraic approach

Sarafrazi, Mohammad Amin; Kotta, Ülle; Bartosiewicz, Zbigniew Systems & control letters 2020 / art. 104600, p. 1–7
<https://doi.org/10.1016/j.sysconle.2019.104600> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Flatness based control of a HVAC system

Kaldmäe, Arvo; Kotta, Ülle Information technology and control 2017 / p. 499-507 : ill <https://doi.org/10.5755/j01.itc.46.4.17697> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Minimal realizations of nonlinear systems

Kotta, Ülle; Moog, Claude; Tönso, Maris Automatica 2018 / p. 207-212 <https://doi.org/10.1016/j.automatica.2018.05.007> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Minimal realizations of nonlinear time-delay systems

Kaldmäe, Arvo; Zbigniew, Bartosiewicz; Kotta, Ülle; Wyrwas, Małgorzata IEEE transactions on automatic control 2023 / p. 6766 - 6772 <https://doi.org/10.1109/TAC.2023.3240124> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The minimal time-varying realization of a nonlinear time-invariant system?

Kotta, Ülle; Moog, Claude H.; Tönso, Maris 9th IFAC Symposium on Nonlinear Control Systems 2013 : Toulouse, France, 4 - 6 September 2013 2013 / p. 518 - 523 <https://doi.org/10.3182/20130904-3-FR-2041.00080> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

A model-based adaptive control of turning maneuver for catamaran autonomous surface vessel

Astrov, Igor; Astrova, Irina WSEAS Transactions on Systems and Control 2024 / p. 135-142
<https://doi.org/10.37394/23203.2024.19.14> [Journal metrics at Scopus](#) [Article at Scopus](#)

NLControl - a mathematica package for nonlinear control systems

Kotta, Ülle; Tönso, Maris IFAC-PapersOnLine 2017 / p. 681-686 <https://doi.org/10.1016/j.ifacol.2017.08.122> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

On integrability of observable space for discrete-time analytic systems

Kawano, Yu; **Kotta, Ülle** 2015 54th IEEE Conference on Decision and Control (CDC) : date: 15-18 Dec. 2015 2015 / p. 7137 - 7142 <https://doi.org/10.1109/CDC.2015.7403345> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Optimal tracking control of catamaran sailboat model in a smart city

Astrov, Igor Automation, Robotics & Communications for Industry 4.0/5.0 : proceedings of the 4th Winter IFSA Conference on Automation, Robotics & Communications for Industry 4.0/5.0 (ARCI' 2024), 7-9 February 2024, Innsbruck, Austria 2024 / p. 78–83 : ill <https://doi.org/10.13140/RG.2.2.20923.18722>

Popov form and the explicit equations of inverse systems

Bartosiewicz, Zbigniew; **Kotta, Ülle**; Pawluszewicz, Ewa; Tönso, Maris; Wyrwas, Małgorzata Proceedings of the Estonian Academy of Sciences 2018 / p. 432-355 : ill http://www.kirj.ee/public/proceedings_pdf/2018/issue_4/proc-2018-4-342-355.pdf <https://doi.org/10.3176/proc.2018.4.04> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Realization of nonlinear input-output equations in controller canonical form

Kaldmäe, Arvo; Kotta, Ülle Kybernetika 2018 / p. 736-747 <https://doi.org/10.14736/kyb-2018-4-0736> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Single-experiment observability decomposition of discrete-time analytic systems

Kawano, Yu; **Kotta, Ülle** Systems & control letters 2016 / p. 193-199 <https://doi.org/10.1016/j.sysconle.2016.09.016> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Transforming a set of nonlinear input-ouput equations into Popov form

Bartosiewicz, Zbigniew; **Kotta, Ülle**; Pawluszewicz, Ewa; **Tönso, Maris**; Wyrwas, Małgorzata 2015 54th IEEE Conference on Decision and Control (CDC) : date: 15-18 Dec. 2015 2015 / p. 7131 - 7136 <https://doi.org/10.1109/CDC.2015.7403344> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Weak reachability and controllability of discrete-time nonlinear systems: generic approach and singular points

Mullari, Tanel; Kotta, Ülle; Bartosiewicz, Zbigniew; Sarafrazi, Mohammad Amin; Moog, Claude; Pawluszewicz, Ewa International journal of control 2020 / p. 483-489 <https://doi.org/10.1080/00207179.2018.1479076> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)