

Algebraic necessary and sufficient condition for difference flatness

Kaldmäe, Arvo International Journal of Control 2021 / 8 p <https://doi.org/10.1080/00207179.2021.1908598> [Journal metrics at Scopus](#)
[Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

An algorithm to transform discrete-time state equations into the extended observer form

Kaldmäe, Arvo; Kotta, Ülle Automatica 2024 / art. 111598 <https://doi.org/10.1016/j.automatica.2024.111598> [Journal metrics at Scopus](#)
[Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Analysis of cost function composition based on the horizon time prediction of an indirect MPC current control in single-phase grid-connected PV inverters

Pimentel, Sergio Pires; Husev, Oleksandr; Vinnikov, Dmitri; Stepenko, Serhii 2019 IEEE 60th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 7-9 October 2019 : conference proceedings 2019 / 6 p. : ill <https://doi.org/10.1109/RTUCON48111.2019.8982377>

A comparison of a discrete-time PI and an indirect MPC current controllers for a single-phase grid-connected inverter operating with distorted grid and significant computation feedback delay

Pimentel, Sergio Pires; Husev, Oleksandr; Vinnikov, Dmitri; Stepenko, Serhii; Kütt, Lauri; Rodriguez, Jose 2019 IEEE 15th Brazilian Power Electronics Conference and 5th IEEE Southern Power Electronics Conference (COBEP/SPEC) 2019 / 6 p.: ill <https://doi.org/10.1109/COBEP/SPEC44138.2019.9065396>

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

Feedback linearization and lattice theory

Kotta, Ülle; Tönso, Maris; Shumsky, Alexey Ye.; Zhirabok, Alexey N. Systems & control letters 2013 / p. 248-255
<https://doi.org/10.1016/j.sysconle.2012.11.014> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Feedback linearization of discrete-time nonlinear control systems : computational aspects

Mullari, Tanel; Kotta, Ülle Proceedings of the Estonian Academy of Sciences 2020 / p. 11-26 <https://doi.org/10.3176/proc.2020.1.03>
http://kirj.ee/32996/?tpl=1061&c_tpl=1064 [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fixed-order stabilising controller design by a mixed randomised/deterministic method

Nurges, Ülo; Avanessov, Sergei International journal of control 2015 / p. 335-346 <https://doi.org/10.1080/00207179.2014.953208>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Functions' algebra in nonlinear control : computational aspects and software

Belikov, Juri; Kaldmäe, Arvo; Kaparin, Vadim; Kotta, Ülle; Shumsky, Alexey Ye.; Tönso, Maris; Zhirabok, Alexey Proceedings of the Estonian Academy of Sciences 2017 / p. 89-107 <https://doi.org/10.3176/proc.2017.1.06> http://www.ester.ee/record=b2355998*est
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

An indirect model predictive current control (CCS-MPC) for grid-connected single-phase three-level NPC quasi-z-source PV inverter

Pires Pimentel, Sergio; Husev, Oleksandr; Vinnikov, Dmitri; Roncero-Clemente, Carlos; Stepenko, Serhii 59th Annual International Scientific Conference on Power and Electrical Engineering : November 12, 13, 2018, Riga Technical University (RTUCON) : conference proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/RTUCON.2018.8659840>

Input-output decoupling of discrete-time nonlinear systems by dynamic measurement feedback

Kaldmäe, Arvo; Kotta, Ülle European journal of control 2017 / p. 31-38 : ill <https://doi.org/10.1016/j.ejcon.2016.12.004> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Input-output linearization of discrete-time systems by dynamic output feedback

Kaldmäe, Arvo; Kotta, Ülle European journal of control 2014 / p. 73-78 <https://doi.org/10.1016/j.ejcon.2013.12.004> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Measurement feedback disturbance decoupling in discrete-time nonlinear systems

Kaldmäe, Arvo; Kotta, Ülle; Shumsky, Alexey Ye.; Zhirabok, Alexey N. Automatica 2013 / p. 2887-2891 : ill
<https://doi.org/10.1016/j.automatica.2013.06.013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The modeling and investigation of slot skews and supply imbalance on the development of principal slotting harmonics in squirrel cage induction machines

Asad, Bilal; Vaimann, Toomas; Belahcen, Anouar; Kallaste, Ants; Rassõlkin, Anton; Khang, Huynh Van; Ghahfarokhi, Payam Shams; Naseer, Muhammad Usman; Iqbal, Muhammad Naveed IEEE Access 2021 / p. 165932-165946
<https://doi.org/10.1109/ACCESS.2021.3134331> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

New stability conditions for discrete polynomials

Nurges, Ülo; Rüstern, Ennu Proceedings of the 2005 American Control Conference : June 8-June 10, 2005, Hilton Portland & Executive Tower, Portland, Oregon. Vol. 6 2005 / p. 4149-4153 : ill
https://folk.ntnu.no/skoge/prost/proceedings/acc05/PDFs/Papers/0742_FrB05_6.pdf

A note on observability of nonlinear discrete-time systems

Kaldmäe, Arvo; Kotta, Ülle 2023 62nd IEEE Conference on Decision and Control (CDC), Singapore, 13-15 December 2023 2023 / p. 7483-7488 <https://doi.org/10.1109/CDC49753.2023.10383709> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

On integrability of observable space for discrete-time polynomial control systems

Kawano, Yu; **Kotta, Ülle** IEEE transactions on automatic control 2015 / p. 1987-1991 <https://doi.org/10.1109/TAC.2014.2365685> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

On the robust control of polytopic plants

Nurges, Ülo; Rüstern, Ennu Proceedings of the 1999 American Control Conference : June 2-4, 1999, Hyatt Regency San Diego, San Diego, California, USA. Vol. 1 1999 / p. 435-439 : ill <https://ieeexplore.ieee.org/document/782865>

On the robust stability and robust control via reflections coefficients [Electronic resource]

Nurges, Ülo; Rüstern, Ennu Proceedings of the First African Control Conference : University of Cape Town, Cape Town, South Africa, 3-5 December 2003 2003 / p. 381-386 [CD-ROM] <https://folk.ntnu.no/skoge/prost/proceedings/afcon03/Papers/003.pdf>

On the transformation of a nonlinear discrete-time input-output system into the strong row-reduced form

Bartosiewicz, Zbigniew; **Belikov, Juri; Kotta, Ülle; Tönso, Maris; Wyrwas, Małgorzata** Proceedings of the Estonian Academy of Sciences 2016 / p. 220-236 <https://doi.org/10.3176/proc.2016.3.02> https://artiklid.elnet.ee/record=b2798394*est [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 discrete-time nonlinear input-output equations : polynomial approach

Kotta, Ülle; Tönso, Maris Automatica 2012 / p. 255-262 <https://www.sciencedirect.com/science/article/pii/S0005109811005413>

Reflection segments based robust PID controller solution for benchmark problem

Avanessov, Sergei; Nurges, Ülo 2014 22nd Mediterranean Conference on Control and Automation (MED) : University of Palermo, June 16-19, 2014, Palermo, Italy 2014 / p. 1406-1411 : ill

Reflection segments based stability domain approximation of the robust PID controller parameters

Avanessov, Sergei; Nurges, Ülo 2012 20th Mediterranean Conference on Control & Automation (MED), MED 2012 : Conference Proceedings : July 3-6, 2012, Catalonia Barcelona PlazaHotel, Barcelona, Spain 2012 / p. 204-209 : ill
<https://ieeexplore.ieee.org/document/6265639>

Robust pole placement by quadratic programming

Nurges, Ülo; Rüstern, Ennu 5th IFAC Symposium on Robust Control Design : Toulouse, France, July 4-7, 2006 2006 / p. 333-338
<https://www.sciencedirect.com/science/article/pii/S1474667015335217>

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](#)

Stability of discrete-time systems via polytopes of reflection vector sets

Avanessov, Sergei; Nurges, Ülo Estonian journal of engineering 2012 / p. 291-301

The strong Popov form of nonlinear input-output equations

Bartosiewicz, Zbigniew; Pawluszewicz, Ewa; Wyrwas, Małgorzata; **Kotta, Ülle; Tönso, Maris** Proceedings of the Estonian Academy of Sciences 2018 / p. 193-206 <https://doi.org/10.3176/proc.2018.3.01> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)