

Ambient data-based online identification and location of frequency oscillations

Cai, Guowei; Xuan, Lei; Sun, Zhenglong; Chao, Jiang; **Belikov, Yuri**; Levron, Yoash International Journal of Electrical Power and Energy Systems 2024 / art. 109843 <https://doi.org/10.1016/j.ijepes.2024.109843> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Analyzing the dynamics and stability of DQ0 systems based on a Port-Hamiltonian approach

Levron, Yoash; **Kaparin, Vadim**; **Belikov, Yuri** 2019 27th Mediterranean Conference on Control and Automation (MED) 2019 / p. 410-415 : ill <https://doi.org/10.1109/MED.2019.8798495>

Application of neural-network based variable fractional order PID controllers for load frequency control in isolated microgrids

Belikov, Yuri; Nosrati, Komeil; **Škiparev, Vjatseslav**; **Tepljakov, Aleksei**; **Petlenkov, Eduard**; Levron, Yoash Power system frequency control : modeling and advances. 1st Ed 2023 / p. 203–216 : ill <https://www.elsevier.com/books/power-system-frequency-control/mishra/978-0-443-18426-0>

Applications of digital twins for demand side recommendation scheme with consumer comfort constraints

Onile, Abiodun Emmanuel; **Belikov, Yuri**; **Petlenkov, Eduard**; Levron, Yoash IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT Europe 2023) : proceedings 2023 / 5 p <https://doi.org/10.1109/ISGTEUROPE56780.2023.10407399>

Applications of game theory to design and operation of modern power systems: a comprehensive review

Navon, Aviad; Yosef, Gefen Ben; Machlev, Ram; Shapira, Shmuel; Chowdhury, Nilanjan Roy; **Belikov, Yuri**; Orda, Ariel; Levron, Yoash Energies 2020 / art. 3982, 34 p <https://doi.org/10.3390/en13153982> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Assessing energy generation and consumption patterns in times of crisis : COVID-19 as a case study

Ofir, Ron; Zargari, Noa; Levron, Yoash; **Belikov, Yuri** 2021 IEEE Madrid PowerTech 2021 / 6 I <https://doi.org/10.1109/PowerTech46648.2021.9494753>

Battery storage technologies for electrical applications : impact in stand-alone photovoltaic systems

Akinyele, Daniel; **Belikov, Yuri**; Levron, Yoash Energies 2017 / art. 1760, 39 p. : ill <https://doi.org/10.3390/en10111760> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Challenges of microgrids in remote communities: a STEEP model application

Akinyele, Daniel; **Belikov, Yuri**; Levron, Yoash Energies 2018 / art. 432, 35 p. : ill <https://doi.org/10.3390/en11020432> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metric at WOS](#) [Article at WOS](#)

A comparative study on graph-based ranking algorithms for consumer-oriented demand side management

Onile, Abiodun Emmanuel; **Belikov, Yuri**; **Petlenkov, Eduard**; Levron, Yoash 2021 IEEE Madrid PowerTech 2021 / 6 p <https://doi.org/10.1109/PowerTech46648.2021.9494752>

Comparison of time-varying phasor and dq0 dynamic models for large transmission networks

Belikov, Yuri; Levron, Yoash International journal of electrical power & energy systems 2017 / p. 65-74 <https://doi.org/10.1016/j.ijepes.2017.05.017> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Constrained intelligent frequency control in an AC Microgrid : an Online reinforcement learning based PID tuning approach

Nosrati, Komeil; **Tepljakov, Aleksei**; **Petlenkov, Eduard**; **Škiparev, Vjatseslav**; **Belikov, Yuri**; Levron, Yoash 2023 IEEE Power & Energy Society General Meeting (PESGM) 2023 / 5 p. : ill <https://doi.org/10.1109/PESGM52003.2023.10252482>

Construction of nonlinear feedback strategies for energy storage systems : a stochastic dynamic programming approach

Chowdhury, Nilanjan Roy; Baimel, Dmitry; **Belikov, Yuri**; Levron, Yoash 2021 IEEE Madrid PowerTech 2021 / 6 I <https://doi.org/10.1109/PowerTech46648.2021.9494819>

Control of energy storage devices under uncertainty using nonlinear feedback systems

Levron, Yoash; **Belikov, Yuri** 2020 IEEE Power & Energy Society General Meeting : (PESGM 2020) Montreal, Quebec, Canada, 2-6 August 2020 : proceedings 2020 / p. 95-99 <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9281879>

Coordinated PI-based frequency deviation control of isolated hybrid microgrid : an online multi-agent tuning approach via reinforcement learning

Nosrati, Komeil; **Tepljakov, Aleksei**; **Petlenkov, Eduard**; Levron, Yoash; **Škiparev, Vjatseslav**; **Belikov, Yuri** 2022 IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT-Europe) : proceedings 2022 / p. 1-5 : ill <https://doi.org/10.1109/ISGT-Europe54678.2022.9960311>

The cost-competitiveness of concentrated solar power with thermal energy storage in power systems with high solar penetration levels

Miron, Dror; Navon, Aviad; Levron, Yoash; **Belikov, Juri**; Rotschild, Carmel Journal of Energy Storage 2023 / art. 108464
<https://doi.org/10.1016/j.est.2023.108464> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Death spiral of the legacy grid : a game-theoretic approach for studying grid defection

Navon, Aviad; **Belikov, Juri**; Ofir, Ron; Parag, Yael; Orda, Ariel; Levron, Yoash iScience 2023 / art. 106415, 17 p. : ill
<https://doi.org/10.1016/j.isci.2023.106415> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Distributed storage placement policy for minimizing frequency deviations: A combinatorial optimization approach based on enhanced cross-entropy method

Machlev, Ram; Chowdhury, Nilanjan Roy; **Belikov, Juri**; Levron, Yoash International Journal of Electrical Power and Energy Systems 2022 / p. 1-14 : ill <https://doi.org/10.1016/j.ijepes.2021.107332> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Dynamic modeling and stability analysis of power networks using DQ0 transformations with a unified reference frame

Belikov, Juri; Levron, Yoash Proceedings of the Estonian Academy of Sciences 2018 / p. 368-377 : ill
http://www.kirj.ee/public/proceedings_pdf/2018/issue_4/proc-2018-4-368-377.pdf <https://doi.org/10.3176/proc.2018.67.4.05> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Dynamic modeling of networks, microgrids, and renewable sources in the dq0 reference frame : a survey

Baimel, Dmitry; **Belikov, Juri**; Guerrero, Joseph M.; Levron, Yoash IEEE Access 2017 / p. 21323-21335 : ill
<https://doi.org/10.1109/ACCESS.2017.2758523> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effects of economic shocks on power systems: {COVID-19} as a case study

Navon, Aviad; Orda, Ariel; Levron, Yoash; **Belikov, Juri** 2021 IEEE PES Innovative Smart Grid Technologies Europe (ISGT-Europe), 8-21 October, 2021 : proceedings 2021 / 5 p. : ill <https://doi.org/10.1109/ISGTEurope52324.2021.9640021>

Effects of the COVID-19 pandemic on energy systems and electric power grids — a review of the challenges ahead

Navon, Aviad; Machlev, Ram; Carmon, David; **Onile, Abiodun Emmanuel**; **Belikov, Juri**; Levron, Yoash Energies 2021 / art. 1056, 14 p. : ill <https://doi.org/10.3390/en14041056> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Emerging role of industry 5.0 digital twins in demand response electricity market and applications

Onile, Abiodun Emmanuel; **Belikov, Juri**; **Petlenkov, Eduard**; Levron, Yoash IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT Europe 2023) : proceedings 2023 / 6 p <https://doi.org/10.1109/ISGTEUROPE56780.2023.10407322>

Energy efficient behavior modeling for demand side recommender system in solar microgrid applications using multi-agent reinforcement learning model

Onile, Abiodun Emmanuel; **Belikov, Juri**; Levron, Yoash; **Petlenkov, Eduard** Sustainable cities and society 2023 / art. 104392, 20 p. : ill <https://doi.org/10.1016/j.scs.2023.104392> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Energy storage for mitigating grid congestion caused by electric vehicles : a techno-economic analysis using a computationally efficient graph-based methodology

Navon, Aviad; Nitskansky, Ran; Lipman, Eshel; **Belikov, Juri**; Gal, Nurit; Orda, Ariel; Levron, Yoash Journal of energy storage 2023 / art. 106324 <https://doi.org/10.1016/j.est.2022.106324> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Evaluating model performance through a user-centric explainable framework for probabilistic load forecasting models

Robin, Rebecca; Heistrene, Leena; **Belikov, Juri**; Baimel, Dmitry; Levron, Yoash 2024 Third International Conference on Power, Control and Computing Technologies (ICPC2T) 2024 / p. 427 - 432 <https://doi.org/10.1109/ICPC2T60072.2024.10474692> [Article at Scopus](#)

Explainability and transparency of classifiers for air-handling unit faults using explainable artificial intelligence (XAI)

Meas, Molika; Machlev, Ram; **Köse, Ahmet**; **Tepljakov, Aleksei**; Loo, Lauri; Levron, Yoash; **Petlenkov, Eduard**; **Belikov, Juri** Sensors 2022 / art. 6338 : ill <https://doi.org/10.3390/s22176338> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Explainability-based trust algorithm for electricity price forecasting models

Heistrene, Leena; Machlev, Ram; Perl, Michael; **Belikov, Juri**; Baimel, Dmitry; Levy, Kfir; Mannor, Shie; Levron, Yoash Energy and AI 2023 / art 100259, 18 p <https://doi.org/10.1016/j.egyai.2023.100259> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Explainable AI based fault detection and diagnosis system for air handling units

Belikov, Juri; **Meas, Molika**; Machlev, Ram; **Köse, Ahmet**; **Tepljakov, Aleksei**; Loo, Lauri; **Petlenkov, Eduard**; Levron, Yoash Proceedings of the 19th International Conference on Informatics in Control, Automation and Robotics - ICINCO, 2022 , Lisbon, Portugal 2022 / p. 271-279 <https://doi.org/10.5220/0011350000003271>

Explainable Artificial Intelligence (XAI) techniques for energy and power systems : review, challenges and opportunities

Machlev, Ram; Heistrene, L.; Perl, M.; Levy, K. Y.; **Belikov, Juri**; Mannor, S.; Levron, Yoash Energy and AI 2022 / art. 100169, 13 p. : ill <https://doi.org/10.1016/j.egyai.2022.100169> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Explaining the decisions of deep learning models for load disaggregation (NILM) based on XAI

Machlev, Ram; Malka, Asaf; Perl, Michael; Levron, Yoash; **Belikov, Juri** 2022 IEEE Power & Energy Society General Meeting (PESGM) 2022 / art. 183865 , p. 1-5 : ill <https://doi.org/10.1109/PESGM48719.2022.9917049>

Explaining the decisions of power quality disturbance classifiers using latent space features

Machlev, Ram; Perl, Michael; Caciularu, Avi; **Belikov, Juri**; Levy, Kfir Yehuda; Levron, Yoash International journal of electrical power & energy systems 2023 / art. 108949 <https://doi.org/10.1016/j.ijepes.2023.108949> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

An Extended flatness-based controller for permanent magnet synchronous machines incorporating an event-based mechanism

Belikov, Juri; Kaldmäe, Arvo; Levron, Yoash 2019 27th Mediterranean Conference on Control and Automation (MED) 2019 / p. 416-421 : ill <https://doi.org/10.1109/MED.2019.8798551>

Extended observer form for nonlinear system with disturbances : Algorithm and application

Kaparin, Vadim; Simha, Ashutosh; Chowdhury, Nilanjan Roy; **Kotta, Ülle**; Levron, Yoash; **Belikov, Juri** 2024 18th International Conference on Control, Automation, Robotics and Vision (ICARCV) 2024 <https://doi.org/10.1109/ICARCV63323.2024.10821609>

Frequency stability of the Israeli power grid with high penetration of renewable sources and energy storage systems

Ben Yosef, Gefen; Navon, Aviad; Poliak, Olga; Etzion, Naomi; Gal, Nurit; **Belikov, Juri**; **Levron, Yoash** Energy reports 2021 / p. 6148–6161 : ill <https://doi.org/10.1016/j.egy.2021.09.057> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A generalized control paradigm for storage systems : optimal energy management and stability certificates

Chowdhury, Nilanjan Roy; Baimel, Dmitry; **Belikov, Juri**; Levron, Yoash IEEE Transactions on Control Systems Technology 2023 / p. 2920-2927 <https://doi.org/10.1109/TCST.2023.3269808> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hierarchical optimization configuration strategy of synchronous condenser in high penetration wind power sending systems

Sun, Zhenglong; Qiao, Jianhua; Meng, Xin; Pan, Chao; Li, Zewei; **Belikov, Juri**; Levron, Yoash Electronics (Switzerland) 2024 / art. 4359 <https://doi.org/10.3390/electronics13224359> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Implementation of series resonance-based fault current limiter for enhanced transient stability of grid-connected photovoltaic farm

Demin, Slava; Barbie, Eli; Heistrene, Leena; **Belikov, Juri**; **Petlenkov, Eduard**; Levron, Yoash; Baimel, Dmitry Electronics (Switzerland) 2024 / art. 2987 <https://doi.org/10.3390/electronics13152987> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Improved fractional open circuit voltage MPPT methods for PV systems

Baimel, Dmitry; Tapuchi, Saad; Levron, Yoash; **Belikov, Juri** Electronics 2019 / art. 321 <https://doi.org/10.3390/electronics8030321> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Innovative energy services for behavioral-reflective attributes and intelligent recommender system

Onile, Abiodun Emmanuel; **Belikov, Juri**; Levron, Yoash Proceedings of 2020 IEEE PES Innovative Smart Grid Technologies Europe (ISGT-Europe), 26-28 October, 2020 2020 / p. 242-246 <https://doi.org/10.1109/ISGT-Europe47291.2020.9248810>

Integration of long transmission lines in large-scale DQ0 dynamic models

Belikov, Juri; Levron, Yoash Electrical Engineering 2018 / p. 1219–1228 <https://doi.org/10.1007/s00202-017-0582-7> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Leveraging digital twins and demand side recommender Chatbot for optimizing smart grid energy efficiency

Onile, Abiodun Emmanuel; **Belikov, Juri**; **Petlenkov, Eduard**; Levron, Yoash 2023 IEEE PES Innovative Smart Grid Technologies - Asia, ISGT Asia 2023 2023 / 5 p <https://doi.org/10.1109/ISGTAsia54891.2023.10372761>

Measuring explainability and trustworthiness of power quality disturbances classifiers using XAI - explainable artificial intelligence

Machlev, Ram; Perl, Michael; **Belikov, Juri**; Levy, Kfir; Levron, Yoash IEEE transactions on industrial informatics 2022 / p. 5127–5137 <https://doi.org/10.1109/TII.2021.3126111> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Minimal energy storage required for stability of low inertia distributed sources

Fahima, Aviad; Ofir, Ron; Levron, Yoash; **Belikov, Juri** 2018 5th IEEE International Energy Conference (ENERGYCON), Limassol,

Minimal output impedance required for stability of grid-supporting inverters

Ofir, Ron; Zargari, Noa; **Belikov, Juri**; Levron, Yoash IEEE transactions on power delivery 2021 / p. 2241-2244
<https://doi.org/10.1109/TPWRD.2021.3071023> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Modeling power networks using dynamic phasors in the dq0 reference frame

Levron, Yoash; **Belikov, Juri** Electric power systems research 2017 / p. 233-242 <https://doi.org/10.1016/j.epsr.2016.11.024>

MO-NILM: A multi-objective evolutionary algorithm for NILM classification

Machlev, Ram; **Belikov, Juri**; Beck, Yuval; Levron, Yoash Energy and buildings 2019 / p. 134-144
<https://doi.org/10.1016/j.enbuild.2019.06.046> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

MPC-based optimal control of battery management system in residential application

Tammaru, T.; Hokmabad, Hossein Nourollahi; Levron, Yoash; **Belikov, Juri** IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT Europe 2024) : proceedings 2024 / 5 p <https://doi.org/10.1109/ISGTEUROPE62998.2024.10863121>

Neural Architecture Search (NAS) for designing optimal power quality disturbance classifiers

Wang, Qianchao; Kapuza, Itamar; Baimel, Dmitry; **Belikov, Juri**; Levron, Yoash; Machlev, Ram Electric Power Systems Research 2023 / art. 109574 <https://doi.org/10.1016/j.epsr.2023.109574> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A new resonant fault current limiter for improved wind turbine transient stability

Demin, Slava; Sitbon, Moshe; Aharon, Ilan; Barbi, Eli; Machlev, Ram; **Belikov, Juri**; Levron, Yoash; Baimel, Dmitry Electric Power Systems Research 2023 / art. 109600, 8 p <https://doi.org/10.1016/j.epsr.2023.109600> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

New type of bridge fault current limiter with reduced power losses for transient stability improvement of DFIG wind farm

Baimel, Dmitry; Chowdhury, Nilanjan Roy; **Belikov, Juri**; Levron, Yoash Electric Power Systems Research 2021 / art. 107293, 8 p. : ill <https://doi.org/10.1016/j.epsr.2021.107293> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Observable canonical forms of multi-machine power systems using dq0 signals

Levron, Yoash; **Belikov, Juri** 2016 International Conference on the Science of Electrical Engineering (ICSEE) : November 16-18, 2016, Eilat, Israel 2016 / [5] p. : ill <https://doi.org/10.1109/ICSEE.2016.7806197>

Observer-based detection and identification of sensor attacks in networked CPSs

Chowdhury, Nilanjan Roy; **Belikov, Juri**; Baimel, Dmitry; Levron, Yoash Automatica 2020 / art. 109166, 13 p
<https://doi.org/10.1016/j.automatica.2020.109166> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Open source dataset generator for power quality disturbances with deep-learning reference classifiers

Machlev, Ram; Chachkes, A.; **Belikov, Juri**; Beck, Yuval; Levron, Yoash Electric power systems research 2021 / art. 107152, 7 p. : ill <https://doi.org/10.1016/j.epsr.2021.107152> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Open-source software for modeling and analysis of power networks in the dq0 reference frame

Levron, Yoash; **Belikov, Juri** 2017 IEEE Manchester PowerTech (PowerTech 2017) : Manchester, United Kingdom, 18-22 June 2017 2017 / p. 623-628 : ill <https://doi.org/10.1109/PTC.2017.7980912>

An optimal control method for storage systems with ramp constraints, based on an on-going trimming process

Zargari, Noa; Ofir, Ron; Chowdhury, Nilanjan Roy; **Belikov, Juri**; Levron, Yoash IEEE Transactions on Control Systems Technology 2023 / p. 493-496 <https://doi.org/10.1109/TCST.2022.3169906> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimal control of energy storage devices based on Pontryagin's minimum principle and the shortest path method

Zargari, Noa; Levron, Yoash; **Belikov, Juri** Proceedings of 2019 IEEE PES : Innovative Smart Grid Technologies Europe : (ISGT-Europe), Bucharest Romania, 29 September – 2 October, 2019 2019 / 5 p <https://doi.org/10.1109/ISGTEurope.2019.8905748>

Optimal control of Lossy energy storage systems with nonlinear efficiency based on dynamic programming and Pontryagin's minimum principle

Chowdhury, Nilanjan Roy; Ofir, Ron; Zargari, Noa; Baimel, Dmitry; **Belikov, Juri**; Levron, Yoash IEEE transactions on energy conversion 2021 / p. 524-533 <https://doi.org/10.1109/TEC.2020.3004191> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

PF-FEDG : an open-source data generator for frequency disturbance event detection with deep-learning reference classifiers

Sun, Zhenglong; Ram, Machlev; Jiang, Chao; Wang, Qianchao; Perl, Michael; **Belikov, Juri**; Levron, Yoash Energy reports 2023 / p. 397-413 <https://doi.org/10.1016/j.egy.2022.11.182> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

PMU placement for fault line location using neural additive models—A global XAI technique

Perl, Michael; Sun, Zhenglong; Machlev, Ram; **Belikov, Juri**; Levy, Kfir Yehuda; Levron, Yoash International journal of electrical power and energy systems 2024 / art. 109573, 10 p. : ill <https://doi.org/10.1016/j.ijepes.2023.109573> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Properties of nonlinear power system models that are symmetrically configured in the narrow sense

Segev, Elior; Ofir, Ron; Levron, Yoash; **Belikov, Juri** 2023 IEEE Power & Energy Society General Meeting (PESGM) : 16-20 July 2023 (2023) 2023 <https://doi.org/10.1109/PESGM52003.2023.10252373>

A public dataset for synchronous motor electrical faults diagnosis with CNN and LSTM reference classifiers

Sun, Zhenglong; Machlev, Ram; Wang, Qianchao; **Belikov, Juri**; Levron, Yoash; Baimel, Dmitry Energy and AI 2023 / art. 100274, 17 p <https://doi.org/10.1016/j.egyai.2023.100274> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Readiness of small energy markets and electric power grids to global health crises: Lessons from the COVID-19 pandemic

Carmon, David; Navon, Aviad; Machlev, Ram; **Belikov, Juri**; Levron, Yoash IEEE Access 2020 / art. 9139437, p. 127234–127243 <https://doi.org/10.1109/ACCESS.2020.3008929> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Reduction of power system dynamic models using sparse representations

Levron, Yoash; **Belikov, Juri** IEEE transactions on power systems 2017 / p. 3893–3900 : ill <https://doi.org/10.1109/TPWRS.2017.2648979>

Reinforcement learning based MIMO controller for virtual inertia control in isolated microgrids

Škiparev, Vjatseslav; **Belikov, Juri**; **Petlenkov, Eduard**; Levron, Yoash 2022 IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT-Europe) : proceedings 2022 / art. 184786, 5 p. : ill <https://doi.org/10.1109/ISGT-Europe54678.2022.9960447>

Reinforcement learning model-based and model-free paradigms for optimal control problems in power systems: comprehensive review and future directions

Ginzburg-Ganz, Elinor; Segev, Itay; Balabanov, Alexander; Segev, Elior; Kaully Naveh, Sivan; Machlev, Ram; **Belikov, Juri**; Katzir, Liran; Keren, Sarah; Levron, Yoash Energies 2024 / art. 5307, 54 p. : ill <https://doi.org/10.3390/en17215307> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A review of optimal control methods for energy storage systems - energy trading, energy balancing and electric vehicles

Machlev, Ram; Zargari, Noa; Chowdhury, N; **Belikov, Juri**; Levron, Yoash Journal of energy storage 2020 / art. 101787, 16 p <https://doi.org/10.1016/j.est.2020.101787> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Smartgrid-based hybrid digital twins framework for demand side recommendation service provision in distributed power systems

Onile, Abiodun Emmanuel; **Petlenkov, Eduard**; Levron, Yoash; **Belikov, Juri** Future generation computer systems 2024 / p. 142–156 : ill <https://doi.org/10.1016/j.future.2024.03.018> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A sparse minimal-order dynamic model of power networks based on DQ0 signals

Belikov, Juri; Levron, Yoash IEEE transactions on power systems 2018 / p. 1059–1067 : ill <https://doi.org/10.1109/TPWRS.2017.2702746> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Storage for grid deferral : the case of Israel

Gal, Nurit; Navon, Aviad; Ben Yosef, Gefen; Levron, Yoash; **Belikov, Juri** 2021 IEEE PES Innovative Smart Grid Technologies Europe (ISGT-Europe), 8-21 October, 2021 : proceedings 2021 / 5 p <https://doi.org/10.1109/ISGTEurope52324.2021.9639938>

Suppression method of ultralow-frequency oscillation under ambient excitation in hydro-dominant power systems

Guowei, Cai; Xuan, Lei; Zhenglong, Sun; Bo, Gao; Xiaoqiang, Wei; Hao, Yang; **Belikov, Juri**; Levron, Yoash Renewable energy 2024 / art. 119983, 18 p. : ill <https://doi.org/10.1016/j.renene.2024.119983> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Symmetry in the narrow sense: on the linearity and time-invariance of DQ0 models

Segev, Elior; Ofir, Ron; **Belikov, Juri**; Levron, Yoash IEEE Transactions on Power Systems 2023 / p. 1751–1754 <https://doi.org/10.1109/TPWRS.2022.3229873> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The role of storage degradation in energy management problems: an optimal control perspective

Chowdhury, Nilanjan Roy; **Belikov, Juri**; Beck, Yuval; Levron, Yoash; Baimel, Dmitry Journal of Energy Storage 2023 / art. 107412, 10 p <https://doi.org/10.1016/j.est.2023.107412> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A tutorial on dynamics and control of power systems with distributed and renewable energy sources based on the DQ0 transformation

Levron, Yoash; **Belikov, Juri**; Baimel, Dmitry Applied sciences 2018 / art. 1661, 48 p. : ill <https://doi.org/10.3390/app8091661> [Journal](#)

[metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Uses and misuses of quasi-static time-varying phasor models in power systems

Belikov, Juri; Levron, Yoash IEEE transactions on power delivery 2018 / p. 3263-3266 <https://doi.org/10.1109/TPWRD.2018.2852950>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Uses of the digital twins concept for energy services, intelligent recommendation systems, and demand side management : a review

Onile, Abiodun Emmanuel; Machlev, Ram; **Petlenkov, Eduard**; Levron, Yoash; **Belikov, Juri** Energy reports 2021 / p. 997-1015
<https://doi.org/10.1016/j.egy.2021.01.090> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Using DQ0 signals based on the central angle reference frame to Model the dynamics of large-scale power systems

Zargari, Noa; Ofir, Ron; Levron, Yoash; **Belikov, Juri** Proceedings of 2020 IEEE PES Innovative Smart Grid Technologies Europe (ISGT-Europe), 26-28 October, 2020 2020 / p. 1099-1103 <https://doi.org/10.1109/ISGT-Europe47291.2020.9248812>

Verification of utility-scale solar photovoltaic plant models for dynamic studies of transmission networks

Machlev, Ram; Batushansky, Zohar; Soni, Sachin; Chadliev, Vladimir; **Belikov, Juri**; Levron, Yoash Energies 2020 / art. 3191, 20 p. : ill <https://doi.org/10.3390/en13123191> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Virtual inertia control methods in islanded microgrids

Škiparev, Vjatseslav; Machlev, Ram; Chowdhury, Nilanjan Roy; Levron, Yoash; **Petlenkov, Eduard**; Belikov, Juri Energies 2021 / art. 1562, 20 p. : ill <https://doi.org/10.3390/en14061562> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Virtual inertia control of isolated microgrids using an NN-based VFOPID controller

Škiparev, Vjatseslav; **Nosrati, Komeil**; **Tepljakov, Aleksei**; **Petlenkov, Eduard**; Levron, Yoash; **Belikov, Juri**; Guerrero, Joseph M. IEEE Transactions on sustainable energy 2023 / p. 1558-1568 <https://doi.org/10.1109/TSTE.2023.3237922> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)