



OTTO VON GUERICKE
UNIVERSITÄT
MAGDEBURG

MATH

FAKULTÄT FÜR
MATHEMATIK

Publikationsbericht 2021

Fakultät für Mathematik

FAKULTÄT FÜR MATHEMATIK

1. LEITUNG

Prof. Dr. Alexander Pott (Dekan)

Prof. Dr. Miles Simon (Prodekan und Studiendekan)

2. VERÖFFENTLICHUNGEN

BEGUTACHTETE ZEITSCHRIFTENAUFsätze

Jendersie, Robert; Werner, Steffen W. R.

A comparison of numerical methods for model reduction of dense discrete-time systems

Automatisierungstechnik: AT - Berlin: De Gruyter, Bd. 69 (2021), 8, S. 683-694;

[Imp.fact.: 0.547]

DISSERTATIONEN

Kaspers, Christian; Pott, Alexander [AkademischeR BetreuerIn]

Equivalence problems of almost perfect nonlinear functions and disjoint difference families

Magdeburg, 2021, vii, 141 Seiten, Diagramme, 30 cm

Lam, Joseph; Carpentier, Alexandra [AkademischeR BetreuerIn]

Testing of distributions, minimax optimality and extensions

Magdeburg: Universitätsbibliothek, 2021, 1 Online-Ressource (xi, 180 Seiten), Diagramme;

Peters, Benjamin; Sager, Sebastian [AkademischeR BetreuerIn]

Monomial patterns in polynomial optimization

Magdeburg, 2021, VI, 125 Seiten, Illustrationen, Diagramme, 30 cm

Polujan, Alexandr; Pott, Alexander [AkademischeR BetreuerIn]

Boolean and vectorial functions - a design-theoretic point of view

Magdeburg, 2021, xviii, 152 Seiten, Diagramme, 30 cm

Uebbing, Jennifer; Sager, Sebastian [AkademischeR BetreuerIn]; Sundmacher, Kai [AkademischeR BetreuerIn]

Power-to-methane process synthesis via mixed integer nonlinear programming

Magdeburg, 2021, XII, 167 Seiten, Illustrationen, Diagramme, 30 cm

Wahl, Henry; Richter, Thomas [AkademischeR BetreuerIn]; Heiland, Jan [AkademischeR BetreuerIn]

Unfitted finite elements for fluid-rigid body interaction problems

Magdeburg: Universitätsbibliothek, 2021, 1 Online-Ressource (viii, 170 Seiten, 17,45 MB), Illustrationen;

Werner, Steffen W. R.; Benner, Peter [AkademischeR BetreuerIn]

Structure-preserving model reduction for mechanical systems

Magdeburg: Universitätsbibliothek, 2021, 1 Online-Ressource (xxii, 270 Seiten, 5,19 MB), Illustrationen;

Zeile, Clemens; Sager, Sebastian [AkademischeR BetreuerIn]

Combinatorial integral decompositions for mixed-integer optimal control

Magdeburg, 2021, VIII, 254 Seiten, Illustrationen, Diagramme, 30 cm

INSTITUT FÜR ALGEBRA UND GEOMETRIE

1. LEITUNG

Prof. Dr. Thomas Kahle

Prof. Dr. Benjamin Nill (Institutsleiter)

Prof. Dr. Alexander Pott

Prof. Dr. Stefanie Rach

Prof. Dr. Petra Schwer

2. VERÖFFENTLICHUNGEN

BEGUTACHTETE ZEITSCHRIFTENAUFsätze

Bauer, Thomas; Müller-Hill, Eva; Neuhaus-Eckhardt, Silke; Rach, Stefanie

Beweisverständnis im Mathematikstudium unterstützen: Vergleich unterschiedlicher Varianten der Strategie Illustrieren am Beispiel

Journal für Mathematik-Didaktik - Berlin: Springer . - 2021, insges. 36 S.;

Kahle, Thomas; Röttger, Frank; Schwabe, Rainer

The semialgebraic geometry of saturated optimal designs for the Bradley-Terry model

Algebraic statistics - Berkeley, Calif.: Mathematical Sciences Publishers, Bd. 12 (2021), 1, S. 97-114;

Kaspers, Christian; Zhou, Yue

The number of almost perfect nonlinear functions grows exponentially

Journal of cryptology: the journal of the International Association for Cryptologic Research - New York, NY: Springer, Volume 34(2021), article number 4, 37 Seiten;

[Imp.fact.: 1.277]

Kretschmer, Andreas

The chow ring of hyperkähler varieties of K3 [2]-type via Lefschetz actions

Mathematische Zeitschrift - Berlin: Springer . - 2021, insges. 22 S.;

[Imp.fact.: 0.964]

Polujan, Alexandr; Pott, Alexander

On design-theoretic aspects of Boolean and vectorial bent function

IEEE transactions on information theory: a journal devoted to the theoretical and experimental aspects of information transmission, processing, and utilization ; a publication of the IEEE Information Theory Society/ Institute of Electrical and Electronics Engineers - Piscataway, NJ: IEEE, Bd. 67 (2021), 2, S. 1027-1037;

[Imp.fact.: 3.036]

Rach, Stefanie; Ufer, Stefan; Kosiol, Timo

Die Rolle des Selbstkonzepts im Mathematikstudium - wie fit fühlen sich Studierende in Mathematik?

Zeitschrift für Erziehungswissenschaft - Berlin: Springer . - 2021, insges. 23 S.;

BEGUTACHTETE BUCHBEITRÄGE

Neuhaus, Silke; Rach, Stefanie

Hochschulmathematik in einem Lehramtsstudium - wie begründen Studierende deren Relevanz und wie kann die Wahrnehmung der Relevanz gefördert werden?

Lehrinnovationen in der Hochschulmathematik - Berlin, Heidelberg: Springer Berlin Heidelberg; Biehler, Rolf . - 2021, S. 205-226;

DISSERTATIONEN

Kaspers, Christian; Pott, Alexander [AkademischeR BetreuerIn]

Equivalence problems of almost perfect nonlinear functions and disjoint difference families

Magdeburg, 2021, vii, 141 Seiten, Diagramme, 30 cm

Polujan, Alexandr; Pott, Alexander [AkademischeR BetreuerIn]

Boolean and vectorial functions - a design-theoretic point of view

Magdeburg, 2021, xviii, 152 Seiten, Diagramme, 30 cm

1. LEITUNG

Prof. Dr. Peter Benner (MPI Magdeburg)

Prof. Dr. Klaus Deckelnick

Prof. Dr. Hans-Christoph Grunau

Jun. Prof. Dr. Jan Heiland

Prof. Dr. Thomas Richter (Geschäftsführender Leiter)

Prof. Dr. Miles Simon

Prof. Dr. Gerald Warnecke

Priv.-Doz. Dr. Bernd Rummler nur bis 31.03.2022

2. VERÖFFENTLICHUNGEN

BEGUTACHTETE ZEITSCHRIFTENAUFsätze

Barrett, John W.; Deckelnick, Klaus; Nürnberg, Robert

A finite element error analysis for axisymmetric mean curvature flow

IMA journal of numerical analysis: IMAJNA/ Institute of Mathematics and Its Applications - Oxford: Oxford Univ. Press, Bd. 41 (2021), 3, S. 1641-1667;

[Imp.fact.: 2.275]

Barrett, John W.; Deckelnick, Klaus; Styles, Vanessa

A practical phase field method for an elliptic surface PDE

IMA journal of numerical analysis: IMAJNA/ Institute of Mathematics and Its Applications - Oxford: Oxford Univ. Press, Bd. 41 (2021), 3, S. 1668-1695;

[Imp.fact.: 2.275]

Behr, Maximilian; Benner, Peter; Heiland, Jan

Galerkin trial spaces and Davison-Maki methods for the numerical solution of differential Riccati equations

Applied mathematics and computation - New York, NY: Elsevier, Bd. 410 (2021);

[Imp.fact.: 4.091]

Benner, Peter; Gugercin, Serkan; Werner, Steffen W. R.

Structure-preserving interpolation for model reduction of parametric bilinear systems

Automatica - Amsterdam [u.a.]: Elsevier, Pergamon Press, Bd. 132 (2021);

[Imp.fact.: 5.944]

Benner, Peter; Gugercin, Serkan; Werner, Steffen W. R.

Structure-preserving interpolation of bilinear control systems

Advances in computational mathematics - Bussum: Baltzer Science Publ., Bd. 47 (2021), insges. 38 S.;

[Imp.fact.: 1.91]

Benner, Peter; Klawonn, Axel; Stoll, Martin

Topical issue scientific machine learning (1/2)

GAMM-Mitteilungen/ Gesellschaft für Angewandte Mathematik und Mechanik - Weinheim: Wiley-VCH, Bd. 44 (2021), 1, insges. 2 S.;

Benner, Peter; Klawonn, Axel; Stoll, Martin

Topical issue scientific machine learning (2/2)

GAMM-Mitteilungen/ Gesellschaft für Angewandte Mathematik und Mechanik - Weinheim: Wiley-VCH, Bd. 44 (2021), 2, insges. 1 S.;

Benner, Peter; Werner, Steffen W. R.

Frequency- and time-limited balanced truncation for large-scale second-order systems
Linear algebra and its applications - New York, NY: American Elsevier Publ., Bd. 623 (2021), S. 68-103;
[Imp.fact.: 1.401]

Daddi-Moussa-Ider, Abdallah; Sprenger, Alexander R.; Richter, Thomas; Löwen, Hartmut; Menzel, Andreas

Steady azimuthal flow field induced by a rotating sphere near a rigid disk or inside a gap between two coaxially positioned rigid disks
Physics of fluids: devoted to the publication of original theoretical, computational, and experimental contributions to the dynamics of gases, liquids, and complex or multiphase fluids - [S.I.]: American Institute of Physics, Bd. 33 (2021), 8;
[Imp.fact.: 3.385]

Deckelnick, Klaus; Doemeland, Marco; Grunau, Hans-Christoph

Boundary value problems for a special Helfrich functional for surfaces of revolution - existence and asymptotic behaviour
Calculus of variations and partial differential equations - Berlin: Springer, Bd. 60 (2021), insges. 31 S.;
[Imp.fact.: 1.945]

Deckelnick, Klaus; Nürnberg, Robert

Error analysis for a finite difference scheme for axisymmetric mean curvature flow of genus-0 surfaces
SIAM journal on numerical analysis/ Society for Industrial and Applied Mathematics - Philadelphia, Pa.: SIAM, Bd. 59 (2021), 5, S. 2698-2721;
[Imp.fact.: 3.212]

Failor, Lukas; Minakowski, Piotr; Richter, Thomas

On the impact of fluid structure interaction in blood flow simulations
Vietnam journal of mathematics: formerly Tạp chí Toán học (Journal of Mathematics) - Singapore: Springer . - 2021;
[Online first]

Feng, Lihong; Benner, Peter

On error estimation for reduced-order modeling of linear non-parametric and parametric systems
Mathematical modelling and numerical analysis - Les Ulis: EDP Sciences, Bd. 55 (2021), 2, S. 561-594;
[Imp.fact.: 1.716]

Frei, Stefan; Richter, Thomas; Wick, Thomas

LocModFE: locally modified finite elements for approximating interface problems in deal.II
Software impacts - [Amsterdam]: Elsevier ScienceDirect, Bd. 8 (2021), insges. 4 S.;

Grunau, Hans-Christoph

Optimal estimates from below for Green functions of higher order elliptic operators with variable leading coefficients
Archiv der Mathematik: ADM - Berlin: Springer, Bd. 117 (2021), S. 95-104;
[Imp.fact.: 0.608]

Heiland, Jan

Convergence of coprime factor perturbations for robust stabilization of Oseen systems
Mathematical control and related fields - Springfield, Mo.: AIMS . - 2021, insges. 15 S.;

Heiland, Jan; Zuazua, Enrique

Classical system theory Revisited for turnpike in standard state space systems and impulse controllable descriptor systems
SIAM journal on control and optimization/ Society for Industrial and Applied Mathematics - Philadelphia, Pa.: Soc., Bd. 59 (2021), 5, S. 3600-3624;
[Imp.fact.: 2.267]

Kalosha, J. I.; Zuyev, Alexander

Asymptotic stabilization of a flexible beam with an attached mass
Ukrainian mathematical journal - New York, NY: Consultants Bureau, Bd. 73 (2021), 10, S. 1330-1341;

Lautsch, Leopold; Richter, Thomas

Error estimation and adaptivity for differential equations with multiple scales in time
Computational methods in applied mathematics - Berlin: De Gruyter, Bd. 21 (2021), 4, S. 841-861;
[Imp.fact.: 1.375]

Lehrenfeld, Christoph; Heimann, Fabian; Preuß, Janosch; Wahl, Henry

ngsxfem - add-on to NGSolve for geometrically unfitted finite element discretizations
The journal of open source software - [Erscheinungsort nicht ermittelbar]: [Verlag nicht ermittelbar], Bd. 64 (2021), 6, insges. 3 S.;

Lui, Hailiang; Thein, Ferdinand

On the invariant region for compressible Euler equations with a general equation of state
Communications on pure and applied analysis: CPAA - Springfield, Mo.: AIMS - CPAA . - 2021;
[Imp.fact.: 1.105]

Margenberg, Nils; Richter, Thomas

Parallel time-stepping for fluidstructure interactions
Mathematical modelling of natural phenomena - Les Ulis: EDP Sciences, Bd. 16 (2021), insges. 19 S. ;
[Imp.fact.: 4.157]

Mehlmann, C.; Danilov, S.; Losch, M.; Lemieux, J. F.; Hutter, N.; Richter, Thomas; Blain, P.; Hunke, E. C.; Korn, P.

Simulating linear kinematic features in viscous-plastic sea ice models on quadrilateral and triangular grids with different variable staggering
Journal of advances in modeling earth systems - Fort Collins, Colo., Bd. 13 (2021), 11, insges. 16 S. ;
[Imp.fact.: 6.66]

Minakowska, Martyna; Richter, Thomas; Sager, Sebastian

A finite element/neural network framework for modeling suspensions of non-spherical particles
Vietnam journal of mathematics: formerly Tạp chí Toán học (Journal of Mathematics) - Singapore: Springer, Bd. 49 (2021), 1, S. 207-235;

Müller, Peter Marvin; Kühl, Niklas; Siebenborn, Martin; Deckelnick, Klaus; Hinze, Michael; Rung, Thomas

A novel p-harmonic descent approach applied to fluid dynamic shape optimization
Structural and multidisciplinary optimization - Berlin: Springer, Bd. 64 (2021), 6, S. 3489-3503, 2017;
[Imp.fact.: 4.542]

Richter, Thomas

An averaging scheme for the efficient approximation of time-periodic flow problems
Computers & fluids: an international journal - Amsterdam [u.a.]: Elsevier Science, Volume 214 (2020), article 104769, 2021;
[Imp.fact.: 2.223]

Sarna, Neeraj; Benner, Peter

Data-Driven model order reduction for problems with parameter-dependent jump-discontinuities
Computer methods in applied mechanics and engineering - Amsterdam [u.a.]: Elsevier Science, Bd. 387 (2021);
[Imp.fact.: 6.756]

Skrzypacz, Piotr; Chalkarova, Nagima; Golman, Boris; Andreevc, Vsevolod; Schieweck, Friedhelm

Numerical simulations of dead zone formation in the catalytic flow-through membrane reactor
Computers & chemical engineering - Amsterdam [u.a.]: Elsevier Science, Bd. 152 (2021);
[Imp.fact.: 3.845]

Soszyńska, Martyna; Richter, Thomas

Adaptive time-step control for a monolithic multirate scheme coupling the heat and wave equation
BIT - Dordrecht [u.a.]: Springer Science + Business Media B.V, Bd. 61 (2021), S. 1367-1396;
[Imp.fact.: 1.663]

Wahl, Henry; Richter, Thomas

Using a deep neural network to predict the motion of underresolved triangular rigid bodies in an incompressible flow
International journal for numerical methods in fluids - Chichester: Wiley . - 2021, insges. 20 S.;
[Imp.fact.: 2.107]

Wahl, Henry; Richter, Thomas; Frei, Stefan; Hagemeyer, Thomas

Falling balls in a viscous fluid with contact: Comparing numerical simulations with experimental data
Physics of fluids - [S.l.]: American Institute of Physics, Volume 33(2021), issue 3, article 033304, 19 Seiten;
[Imp.fact.: 3.385]

Wahl, Henry; Richter, Thomas; Lehrenfeld, Christoph

An unfitted Eulerian finite element method for the time-dependent Stokes problem on moving domains
IMA journal of numerical analysis/ Institute of Mathematics and Its Applications - Oxford: Oxford Univ. Press .
- 2021;
[Imp.fact.: 2.275]

Zuyev, Alexander; Benner, Peter; Seidel-Morgenstern, Andreas

On the orbital stability of periodic trajectories of a class of discontinuous systems
Proceedings in applied mathematics and mechanics - Weinheim [u.a.]: Wiley-VCH, Bd. 21 (2021), 1, insges. 2 S.;

NICHT BEGUTACHTETE ZEITSCHRIFTENAUFsätze

Nürnberg, Robert; Deckelnick, Klaus

A novel finite element approximation of anisotropic curve shortening flow
Magdeburg: Otto-von-Guericke-Universität, Fakultät für Mathematik, 2021, 31 Seiten, Diagramme - (Preprint;
Fakultät für Mathematik, Otto-von-Guericke-Universität Magdeburg; 2021, Nr. 2)

BEGUTACHTETE BUCHBEITRäge

Benner, Peter; Richter, Thomas; Weinhandl, Roman

A low-rank approach for nonlinear parameter-dependent fluid-structure interaction problems
Numerical Mathematics and Advanced Applications ENUMATH 2019 - Cham: Springer International Publishing;
Vermolen, Fred J. . - 2021, S. 1157-1165 - (Lecture notes in computational science and engineering; volume 139);

Benner, Peter; Seidel-Morgenstern, Andreas; Zuyev, Alexander

Analysis of switching strategies for the optimization of periodic chemical reactions with controlled flow-rate
Perspectives in Dynamical Systems III - Cham: Springer; Awrejcewicz, Jan . - 2021, S. 59-69 - (Springer
proceedings in mathematics & statistics; volume 364);

Benner, Peter; Werner, Steffen W. R.

MORLAB - the model order reduction LABORatory
Model Reduction of Complex Dynamical Systems - Cham: Springer International Publishing; Benner, Peter . -
2021, S. 393-415;

Christoph, Gerd; Ulyanov, Vladimir V.

Random dimension low sample size asymptotics
Recent developments in stochastic methods and applications: ICSM-5, Moscow, Russia, November 23-27, 2020,
selected contributions - Cham: Springer; Shiryaev, Albert N. . - 2021, S. 215-228 - (Springer proceedings in
mathematics & statistics; volume 371);

Garmatter, Dominik; Maggi, Andrea; Wenzel, Marcus; Monem, Shaimaa; Hahn, Mirko; Stoll, Martin; Sager, Sebastian; Benner, Peter; Sundmacher, Kai

Power-to-chemicals - a superstructure problem for sustainable syngas production

Mathematical Modeling, Simulation and Optimization for Power Engineering and Management - Cham: Springer International Publishing; Göttlich, Simone . - 2021, S. 145-168 - (Mathematics in industry; volume 34);

HERAUSGEBERSCHAFTEN

Benner, Peter; Breiten, Tobias; Faßbender, Heike; Hinze, Michael; Stykel, Tatjana; Zimmermann, Ralf

Model Reduction of Complex Dynamical Systems

Cham: Birkhäuser, 2021, 1 Online-Ressource (XIII, 415 p. 128 illus., 100 illus. in color.) - (Springer eBook Collection; International Series of Numerical Mathematics; 171);

Sklyar, Grigory; Zuyev, Alexander

Stabilization of Distributed Parameter Systems: Design Methods and Applications

Cham: Imprint: Springer, 2021., 1st ed. 2021., 1 Online-Ressource (IX, 135 p. 32 illus., 22 illus. in color.) - (Springer eBook Collection; ICIAM 2019 SEMA SIMAI Springer Series; 2);

DISSERTATIONEN

Wahl, Henry; Richter, Thomas [AkademischeR BetreuerIn]; Heiland, Jan [AkademischeR BetreuerIn]

Unfitted finite elements for fluid-rigid body interaction problems

Magdeburg: Universitätsbibliothek, 2021, 1 Online-Ressource (viii, 170 Seiten, 17,45 MB), Illustrationen;

Werner, Steffen W. R.; Benner, Peter [AkademischeR BetreuerIn]

Structure-preserving model reduction for mechanical systems

Magdeburg: Universitätsbibliothek, 2021, 1 Online-Ressource (xxii, 270 Seiten, 5,19 MB), Illustrationen;

1. LEITUNG

Prof. Dr. Sebastian Sager (geschäftsführender Leiter bis 31.03.2021)

Prof. Dr. Volker Kaibel (geschäftsführender Leiter seit 01.04.2021)

2. VERÖFFENTLICHUNGEN

BEGUTACHTETE ZEITSCHRIFTENAUFsätze

Khodabandeh, Pouria; Kayvanfar, Vahid; Rafiee, Majid; Werner, Frank

A bi-objective home health care routing and scheduling model with considering nurse downgrading costs
International journal of environmental research and public health: IJERPH - Basel: MDPI AG, Volume 18(2021),
issue 3, article 900, 24 Seiten;
[Imp.fact.: 2.849]

Le, Do Duc; Merkert, Maximilian; Sorgatz, Stephan; Hahn, Mirko; Sager, Sebastian

Autonomous traffic at intersections - an optimization-based analysis of possible time, energy, and CO₂ savings
Networks: an international journal - New York, NY: Wiley . - 2021, insges. 26 S.;
[Imp.fact.: 5.059]

Minakowska, Martyna; Richter, Thomas; Sager, Sebastian

A finite element/neural network framework for modeling suspensions of non-spherical particles
Vietnam journal of mathematics: formerly Tạp chí Toán học (Journal of Mathematics) - Singapore: Springer,
Bd. 49 (2021), 1, S. 207-235;

Orlovich, Yury; Kukhareno, Kirill; Kaibel, Volker; Skums, Pavel

Scale-free spanning trees and their application in genomic epidemiology
Journal of computational biology - Larchmont, NY: Liebert, Bd. 28 (2021), 10, S. 945-960;
[Imp.fact.: 1.479]

Robuschi, Nicolò; Zeile, Clemens; Sager, Sebastian; Braghin, Francesco

Multiphase mixed-integer nonlinear optimal control of hybrid electric vehicles
Automatica: a journal of IFAC, the International Federation of Automatic Control - Amsterdam [u.a.]: Elsevier,
Pergamon Press, 123 (2021), Artikel 109325, insgesamt 10 Seiten;
[Imp.fact.: 5.541]

Sager, Sebastian; Zeile, Clemens

On mixed-integer optimal control with constrained total variation of the integer control
Computational optimization and applications - New York, NY [u.a.]: Springer Science + Business Media B.V.,
Bd. 78 (2021), S. 575-623;
[Imp.fact.: 2.167]

Schweidtmann, Artur M.; Esche, Erik; Fischer, Asja; Kloft, Marius; Repke, Jens-Uwe; Sager, Sebastian; Mitsos, Alexander

Machine learning in chemical engineering - a perspective
Chemie - Ingenieur - Technik - Weinheim: Wiley-VCH Verl., Bd. 93 (2021), 12, S. 2029-2039;
[Imp.fact.: 1.672]

Shahedi, Alireza; Nasiri, Mohammad Mahdi; Sangari, Mohamad Sadegh; Werner, Frank; Jolai, Fariborz

A stochastic multi-objective model for a sustainable closed-loop supply chain network design in the automotive industry
Process integration and optimization for sustainability - [Singapore]: Springer Singapore . - 2021;

Uebbing, Jennifer; Biegler, Lorenz T.; Rihko-Struckmann, Liisa; Sager, Sebastian; Sundmacher, Kai
Optimization of pressure swing adsorption via a trust-region filter algorithm and equilibrium theory
Computers & chemical engineering: an international journal of computer applications in chemical engineering -
Amsterdam [u.a.]: Elsevier Science, Bd. 151 (2021);
[Imp.fact.: 3.845]

Vakhania, Nodari; Werner, Frank
Branch less, cut more and schedule jobs with release and delivery times on uniform machines
Mathematics: open access journal - Basel: MDPI, Volume 9(2021), issue 6, article 633, 18 Seiten;
[Imp.fact.: 1.747]

Werner, Frank
2020 selected papers from algorithms editorial board members
Algorithms - Basel, Bd. 14.2021, 2, insges. 2 S.;
[Imp.fact.: 2.2]

Werner, Frank
Special Issue Mathematical methods for operations research problems
Mathematics - Basel: MDPI, Bd. 9 (2021), 21, insges. 4 S.;
[Imp.fact.: 2.258]

Werner, Frank
Speciale issue "2021 selected papers from algorithms editorial board members"
Algorithms - Basel: MDPI, Bd. 14 (2021), 12, insges. 3 S.;

Zeile, Clemens; Rauwolf, Thomas; Schmeisser, Alexander; Mizerski, Jeremi Kaj; Braun-Dullaes, Rüdiger; Sager, Sebastian
An intra-cycle optimal control framework for ventricular assist devices based on atrioventricular plane displacement modeling
Annals of biomedical engineering - Dordrecht [u.a.]: Springer Science + Business Media B.V., 1972, Bd. 49 (2021), 12, S. 3508-3523;
[Imp.fact.: 3.934]

Zeile, Clemens; Robuschi, Nicolò; Sager, Sebastian
Mixed-integer optimal control under minimum dwell time constraints
Mathematical programming: Series A, Series B ; a publication of the Mathematical Programming Society -
Berlin: Springer, Bd. 188 (2021), S. 653-694;
[Imp.fact.: 3.995]

NICHT BEGUTACHTETE ZEITSCHRIFTENAUFsätze

Vakhania, Nodari; Werner, Frank
A polynomial algorithm for sequencing jobs with release and delivery times on uniform machines
Basel: MDPI, 2021, 1 Online-Ressource;

BEGUTACHTETE BUCHBEITRäge

Garmatter, Dominik; Maggi, Andrea; Wenzel, Marcus; Monem, Shaimaa; Hahn, Mirko; Stoll, Martin; Sager, Sebastian; Benner, Peter; Sundmacher, Kai
Power-to-chemicals - a superstructure problem for sustainable syngas production
Mathematical Modeling, Simulation and Optimization for Power Engineering and Management - Cham: Springer International Publishing; Göttlich, Simone . - 2021, S. 145-168 - (Mathematics in industry; volume 34);

HERAUSGEBERSCHAFTEN

Wagner, Gerd; Werner, Frank; Ören, Tuncer; De Rango, Floriano

11th International Conference on Simulation and Modeling Methodologies, Technologies and Applications 2021
- Editors: Gerd Wagner, Frank Werner, Tuncer Ören and Floriano De Rango ; SIMULTECH 2021, online streaming, 7-9 July 2021

[Setúbal, Portugal]: SCITEPRESS - Science and Technology Publications, Lda., 2021, Online-Ressource;

Kongress: International Conference on Simulation and Modeling Methodologies, Technologies and Applications 11 (Online : 2021.07.07-09)

DISSERTATIONEN

Himmel, Andreas; Sundmacher, Kai [AkademischeR BetreuerIn]; Sager, Sebastian [AkademischeR BetreuerIn]

Optimization-based operation strategy and storage design for coupled processes

Magdeburg, 2021, e-o, 220 Seiten, Illustrationen, Diagramme, 24 cm

Peters, Benjamin; Sager, Sebastian [AkademischeR BetreuerIn]

Monomial patterns in polynomial optimization

Magdeburg, 2021, VI, 125 Seiten, Illustrationen, Diagramme, 30 cm

Uebbing, Jennifer; Sager, Sebastian [AkademischeR BetreuerIn]; Sundmacher, Kai [AkademischeR BetreuerIn]

Power-to-methane process synthesis via mixed integer nonlinear programming

Magdeburg, 2021, XII, 167 Seiten, Illustrationen, Diagramme, 30 cm

Zeile, Clemens; Sager, Sebastian [AkademischeR BetreuerIn]

Combinatorial integral decompositions for mixed-integer optimal control

Magdeburg, 2021, VIII, 254 Seiten, Illustrationen, Diagramme, 30 cm

INSTITUT FÜR MATHEMATISCHE STOCHASTIK

1. LEITUNG

Prof. Dr. Alexandra Carpentier - geschäftsführende Leiterin (bis 31.08.2021)

Prof. Dr. Anja Janßen

Prof. Dr. Claudia Kirch - geschäftsführende Leiterin (seit 01.09.2021)

Dr. Heiko Großmann

Dr. Martin Wendler

2. VERÖFFENTLICHUNGEN

BEGUTACHTETE ZEITSCHRIFTENAUFsätze

Carpentier, Alexandra; Verzelen, Nicolas

Optimal sparsity testing in linear regression model

Bernoulli: official journal of the Bernoulli Society for Mathematical Statistics and Probability - Aarhus, Bd. 27 (2021), 2, S. 727-750;

[Imp.fact.: 1.393]

Cho, Haeran; Kirch, Claudia

Data segmentation algorithms - univariate mean change and beyond

Econometrics and statistics - Amsterdam [u.a.]: Elsevier B.V. - 2021, insges. 36 S.;

Cho, Haeran; Kirch, Claudia

Two-stage data segmentation permitting multiscale change points, heavy tails and dependence

Annals of the Institute of Statistical Mathematics/ Tōkei-Sūri-Kenkyūsho - Dordrecht [u.a.]: Springer Science + Business Media B.V. - 2021, insges. 32 S.;

[Imp.fact.: 1.267]

Christoph, Gerd; Ulyanov, Vladimir V.

Chebyshev-Edgeworth-type Approximations for statistics based on samples with random sizes

Mathematics: open access journal - Basel: MDPI, Bd. 9 (2021), 7; <http://dx.doi.org/10.3390/math9070775>
10.25673/37927

[Imp.fact.: 2.258]

Drees, Holger; Janßen, Anja; Neblung, Sebastian

Cluster based inference for extremes of time series

Stochastic processes and their applications - Amsterdam [u.a.]: Elsevier, Bd. 142 (2021), S. 1-33;

[Imp.fact.: 1.467]

Freise, Fritjof; Gaffke, Norbert; Schwabe, Rainer

Convergence of least squares estimators in the adaptive Wynn algorithm for some classes of nonlinear regression models

Metrika: international journal for theoretical and applied statistics - Berlin: Springer, Bd. 84 (2021), S. 851-874;

[Imp.fact.: 1.057]

Freise, Fritjof; Gaffke, Norbert; Schwabe, Rainer

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