Asprion, N.; Blagov, S.; Böttcher, R.; Schwientek, J.; Burger, J.; Harbou, E. von; Bortz, M.
Simulation and multi-criteria optimization under uncertain model parameters of a cumene process
In: Chemie-Ingenieur-Technik 89 (2017), Nr.5, S.665-674

Asprion, N.; Böttcher, R.; Pack, R.; Stavrou, M.-E.; Höller, J.; Schwientek, J.; Bortz, M.
Greybox models -new opportunities for the optimization of entire processes
In: Espuña, A.: 27th European Symposium on Computer Aided Process Engineering 2017. Pt.A: Held in Barcelona, Spain, 1st to 5th of October, 2017 Amsterdam: Elsevier, 2017, S.97-102 (Computer-aided chemical engineering 40)

Baccouche, B.; Agostini, P.; Mohammadzadeh, S.; Kahl, M.; Weisenstein, C.; Jonuscheit, J.; Keil, A.; Loeffler, T.; Sauer-Greff, W.; Urbansky, R.
Three-dimensional terahertz imaging with sparse multistatic line arrays
In: IEEE Journal of Selected Topics in Quantum Electronics 23 (2017), Nr.4, Art. 8501411, 11 S.

Baccouche, B.; Agostini, P.; Schneider, F.; Sauer-Greff, W.; Urbansky, R.; Friederich, F.
Comparison of digital beamforming algorithms for 3D terahertz imaging with sparse multistatic line arrays
In: Advances in radio science. Online journal 15 (2017), S.283-292

Baccouche, B.; Sauer-Greff, W.; Urbansky, R.; Friedrich, F.
Application of the phase coherence method for imaging with sparse multistatic line arrays
In: Shiroma, W. (Ed.) ; Institute of Electrical and Electronics Engineers: IEEE MTT-S International Microwave Symposium, IMS 2017: 06-08 June 2017, Honolulu, Hawaii Piscataway, NJ: IEEE, 2017, S.1214-1217

Bartsch, V.; Machado, R.; Rahn, M.; Merten, D.; Pfreundt, F.-J.
GASPI/GPI in-memory check pointing library
In: Rivera, F.F.: Euro-Par 2017. Parallel processing. 23rd International Conference on Parallel and Distributed Computing: Santiago de Compostela, Spain, August 28 – September 1, 2017; Proceedings Cham: Springer International Publishing, 2017, S.497-508

Bauer, B.; Cai, X.; Peth, S.; Schladitz, K.; Steidl, G.
Variational-based segmentation of bio-pores in tomographic images
In: Computers and geosciences 98 (2017), S.1-8

Berger, M.; Lindroth, P.; Welke, P.
Rule-based optimization and multicriteria decision support for packaging a truck chassis
In: Engineering optimization 49 (2017), Nr.6, S.1057-1077

Bitsch, G.; Dreßler, K.; Kleer, M.; Pena Vina, E.
Absicherung von Fahrzeugfunktionen unter Berücksichtigung der Umgebung und des Fahrzeugverhaltens
In: Deutscher Verband für Materialforschung und -prüfung e.V., Berlin; Arbeitskreis Betriebsfestigkeit: (R)Evolution des Antriebs -Auswirkung auf die Betriebsfestigkeit der Bauteile in der Wirkungskette: 44. Tagung des Arbeitskreises Betriebsfestigkeit, 11.-12.10.2017, Friedrichshafen Berlin: DVM, 2017, S.31-41 (DVM-Bericht 144)

Björkenstam, S.; Nyström, J.; Carlson, J.; Roller, M.; Linn, J.; Hanson, L.; Högberg, D.; Leyendecker, S.
A framework for motion planning of digital humans using discrete mechanics and optimal control
In: Wischniewski, S. ; Bundesanstalt für Arbeitsschutz und Arbeitsmedizin, Dortmund: 5th International Digital Human Modeling Symposium 2017. Proceedings: June 26-28, 2017, Wachtberg Dortmund: BAuA, 2017, S.64-71

Bonacker, Esther; Gibali, Aviv; Küfer, Karl-Heinz; Süss, Philipp
Speedup of lexicographic optimization by superiorization and its applications to cancer radiotherapy treatment
In: Inverse problems 33 (2017), Nr.4, Art. 044012, 20 S.

Borgwardt, Steffen; Loera, Jesús A. de; Finhold, Elisabeth
The diameters of network-flow polytopes satisfy the Hirsch conjecture
In: Mathematical programming. Series A (2017), Online First, 27 S.

Bortz, Michael
Modellierung, Simulation und Optimierung von Prozessen
In: InnoVisions (2017), Nr.3, S.1-3

Burger, Jakob; Asprion, Norbert; Blagov, Sergej; Bortz, Michael
Simple perturbation scheme to consider uncertainty in equations of state for the use in process simulation
In: Journal of Chemical and Engineering Data 62 (2017), Nr.1, S.268-274

Burger, M.; Dreßler, K.; Ekevid, T.; Steidel, S.; Weber, D.
Coupling a DEM material model to multibody construction equipment
In: Valasek, M. ; Czech Technical University, Prag; European Community on Computational Methods in Applied Science -ECCOMAS-: 8th ECCOMAS Thematic Conference on Multibody Dynamics 2017. Conference Proceedings: Prague, June 19 -22, 2017 Prag: Czech Technical University, 2017, S.417-424

Burger, M.; Gerdts, M.
A survey on numerical methods for the simulation of initial value problems with sDAEs
In: ilchmann, A.: Surveys in Differential-Algebraic Equations IV Cham: Springer International Publishing, 2017, S.221-300 (Differential-Algebraic Equations Forum)

Calabrese, F.; Bäcker, M.; Gallrein, A.; Leister, G.
SIMULATION -Simulation of a tire blow-out in a full vehicle scenario
In: Pfeffer, P.E.: 7th International Munich Chassis Symposium 2016: Chassis.tech plus; 14 and 15 June 2016, Munich Wiesbaden: Springer Vieweg, 2017, S.869-898

Calabrese, F.; Ludwig, C.; Bäcker, M.; Gallrein, A.
A study of parameter identification for a thermal-mechanical tire model based on flat track measurements
In: Spiryagin, M. ; International Association for Vehicle System Dynamics: Dynamics of Vehicles on Roads and Tracks. Vol.1: Proceedings of the 25th Intern. Symposium on Dynamics of Vehicles on Roads and Tracks, IAVSD 2017, 14-18 August 2017, Rockhampton, Queensland, Australia Boca Raton, Fla.: CRC Press, 2017, S.156-161 und VDI-Bericht 2296 , pp. 57-75

Cristofani, E.; Friederich, F.; Vandewal, M.; Jonuscheit, J.
Nondestructive testing of aeronautics composite structures using ultrawideband radars
In: Taylor, J.: Advanced ultrawideband radar. Signals, targets, and applications Boca Raton, Fla.: CRC Press, 2017, S.237-270

Damm, T.; Benner, P.; Hauth, J.
Computing the stochastic H∞-norm by a netwon iteration
In: IEEE control systems letters 1 (2017), Nr.1, S.92-97

Desmettre, S.; Grün, S.; Seifried, F.T.
Estimating discrete dividends by no-arbitrage
In: Quantitative finance 17 (2017), Nr.2, S.261-274

Dobrovolskij, D.
Ultraschall-Simulationsverfahren zur Berechnung des Gefügerauschens in polykristallinen Werkstoffen
In: ZfP-Zeitung 154 (2017), S.39-42

Dobrovolskij, D.; Gospodnetic, P.
Umlaufende Inspektion - Robotergestütztes System inspiziert automatisch Oberflächenfehler
In: Qualität und Zuverlässigkeit: QZ (2017), Nr.11, S.52-54

Dörlich, V.; Cesarek, P.; Linn, J.; Diebels, S.
Experimental investigation and numerical modeling of resultant-based bending plasticity in cables
In: Valasek, M. ; Czech Technical University, Prag; European Community on Computational Methods

in Applied Science -ECCOMAS-: 8th ECCOMAS Thematic Conference on Multibody Dynamics 2017. Conference Proceedings: Prague, June 19 -22, 2017 Prag: Czech Technical University, 2017, S.37-46

Dreßler, K.; Stephan, T.
Kabel und Schläuche simulationsgestützt optimieren und absichern: Wie flexibel sind sie?
In: Elektronik automotive (2017), Sonderausgabe Bordnetz 2017, S.14-17

F. Küsters, D. Patil and S. Trenn
Switch observability for a class of inhomogeneous switched DAEs
In: 2017 IEEE 56th Annual Conference on Decision and Control (CDC) December 12-15, 2017, Melbourne, Australia; Pages 3175-3180

F. Küsters, S. Trenn, A. Wirsen
Switch-observer for switched linear systems
2017 IEEE 56th Annual Conference on Decision and Control (CDC), December 12-15, 2017, Melbourne, Australia; Pages 1749 – 1754

Farsadpour, S.; Taghizadeh Ghoochany, L.; Kaiser, C.; Freymann, G. v.
Organische, nicht lineare optische Chromophore
Priorität: DE 102015116293 A1: 20150925

Fischer, T.; Pfetsch, M.E.
Monoidal cut strengthening and generalized mixed-integer rounding for disjunctions and complementarity constraints
In: Operations research letters 45 (2017), Nr.6, S.556-560

Fitschen, J.H.; Losch, K.; Steidl, G.
Unsupervised multi class segmentation of 3D images with intensity inhomogeneities
In: Journal of visual communication and image representation 46 (2017), S.312-323

Fliegener, S.; Kennerknecht, T.; Kabel, M.
Investigations into the damage mechanisms of glass fiber reinforced polypropylene based on micro specimens and precise models of their microstructure
In: Composites. Part B, Engineering 112 (2017), S.327-343

Forte, E.; Harbou, E. v.; Burger, J.; Asprion, N.; Bortz, M.
Optimal design of laboratory and pilot-plant experiments using multiobjective optimization
In: Chemie-Ingenieur-Technik 89 (2017), Nr.5, S.645-654

Foss, S.-K.; Karlsen, E.S.; Mispel, J.; Straith, K.R.; Merten, D.; Ettrich, N.
From seismic reflections to diffractions -case study of interpretation for development of a complex gas reservoir
In: European Association of Geoscientists and Engineers -EAGE-: Energy, technology, sustainability -time to open a new chapter. 79th EAGE Conference and Exhibition 2017. Vol.3: Paris, France, 12-15 June 2017 Red Hook, NY: Curran, 2017, S.2178-2182

Fraunhofer-Institut für Techno-und Wirtschaftsmathematik -ITWM-, Kaiserslautern
Jahresbericht 2016/2017
Kaiserslautern: Fraunhofer ITWM, 2017, 92 S.

Fütterling, V.; Lojewski, C.; Pfreundt, F.-J.; Hamann, B.; Ebert, A.
Accelerated single ray tracing for wide vector units
In: Association for Computing Machinery; Special Interest Group on Computer Graphics and Interactive Techniques -SIGGRAPH-; Europ. Assoc. for Computer Graphics -EUROGRAPHICS-: HPG 2017, High Performance Graphics. Proc.: Los Angeles, California, July 28 -30, 2017 New York: ACM, 2017, Art. 6, 9 S.

Gallrein, A.; Bäcker, M.; Calabrese, F.
Dynamic simulation of the inflation gas of a tire under operational conditions
In: Valasek, M. ; Czech Technical University, Prag; European Community on Computational Methods in Applied Science -ECCOMAS-: 8th ECCOMAS Thematic Conference on Multibody Dynamics 2017. Conference Proceedings: Prague, June 19 -22, 2017 Prag: Czech Technical University, 2017, S.407-416

Gilberg, D.; Klar, A.; Steiner, K.
A hydrodynamic model for granular material flows including segregation effects
In: Radjai, F. ; Association for the Study of Micromechanics of Granular Media: Powders and Grains 2017. 8th International Conference on Micromechanics on Granular Media: Montpellier, France, July 3-7, 2017 Les Ulis: EDP Sciences, 2017, Art. 11008, 4 S. (EPJ Web of Conferences 140)

Göbel, M.; Godehardt, M.; Schladitz, K.
Multi-scale structural analysis of gas diffusion layers
In: Journal of power sources 355 (2017), S.8-17

Godehardt, M.; Schladitz, K.; Dietrich, S.; Meyndt, R.; Schulz, H.
Segmentation of collagen fiber bundles in 3D by waterfall on orientations
In: Angulo, J.: Mathematical morphology and its applications to signal and image processing. 13th international symposium, ISMM 2017: Fontainebleau, France, May 15-17, 2017; Proceedings Cham: Springer International Publishing, 2017, S.447-454 (Lecture Notes in Computer Science 10225)

Goldberg, N.; Ospald, F.; Schneider, M.
A fiber orientation-adapted integration scheme for computing the hyperelastic Tucker average for short fiber reinforced composites
In: Computational mechanics 60 (2017), Nr.4, S.595-611

Gramsch, S., Kontak, M., Michel, V.
Three-dimensional simulation of nonwoven fabrics using a greedy approximation of the distribution of fiber directions
(2017) ZAMM Zeitschrift fur Angewandte Mathematik und Mechanik; DOI: 10.1002/zamm.201600188

Griso, G.; Migunova, Anastasia; Orlik, Julia
Asymptotic analysis for domains separated by a thin layer made of periodic vertical beams
In: Journal of elasticity 128 (2017), Nr.2, S.291-331

Häbel, H.; Rajala, T.; Marucci, M.; Boissier, C.; Schladitz, K.; Redenbach, C.; Särkkä, A.
A three-dimensional anisotropic point process characterization for pharmaceutical coatings
In: Spatial statistics 22 (2017), Pt.2, S.306-320

Haehnle, J.; Süss, P.; Landry, G.; Teichert, K.; Hille, L.; Hofmaier, J.; Nowak, D.; Kamp, F.; Reiner, M.; Thieke, C.; Ganswindt, U.; Belka, C.; Parodi, K.; Küfer, K.-H.; Kurz, C.
A novel method for interactive multi-objective dose-guided patient positioning
In: Physics in medicine and biology 62 (2017), Nr.1, S.165-185

Harbou, E. v.; Ryll, O.; Schrabback, M.; Bortz, M.; Hasse, H.
Reactive distillation in a dividing-wall column: Model development, simulation and error analysis
In: Chemie-Ingenieur-Technik 89 (2017), Nr.10, S.1315-1324

Hauck, M.; Klar, A.; Orlik, J.
Design optimization in periodic structural plates under the constraint of anisotropy
In: Zeitschrift für angewandte Mathematik und Mechanik: ZAMM 97 (2017), Nr.10, S.1220-1235

Heieck, F.; Hermann, F.; Middendorf, P.; Schladitz, K.
Influence of the cover factor of 2D biaxial and triaxial braided carbon composites on their in-plane mechanical properties
In: Composite structures 163 (2017), S.114-122

Hellmann, A.; Rief, S.; Schmidt, K.; Kocaman, R.T.; Aibibu, D.; Cherif, C.; Ripperger, S.; Antonyuk, S.
Simulation der Partikelabscheidung und des Druckverlustes von Schutz-und Filtertextilien bei einer Gasdurchströmung
In: Filtrieren und Separieren: F & S 31 (2017), Nr.4, S.268-274

Hettesheimer, T.; Thielmann, A.; Neef, C.; Möller, K.-C.; Wolter, M.; Lorentz, V.; Gepp, M.; Wenger, M.; Prill, T.; Zausch, J.; Kitzler, P.; Montnacher, J.; Miller, M.; Hagen, M.; Fanz, P.; Tübke, J.

Entwicklungsperspektiven für Zellformate von Lithium-Ionen-Batterien in der Elektromobilität
Pfinztal: Fraunhofer-Allianz Batterien, 2017, 48 S.

Hoffmann, A.; Bortz, M.; Welke, R.; Burger, J.; Küfer, K.-H.; Hasse, H.
Stage-to-stage calculations of distillation columns by fixed-point iteration and application of the Banach fixed-point theorem
In: Chemical Engineering Science 164 (2017), S.188-201

Hoffmann, A.; Küfer, K.-H. (Hrsg.); Biegler, L. T. (Hrsg.)
Integrated simulation and optimization of distillation-based flowsheets
Stuttgart: Fraunhofer Verlag, 2017, XII, 179 S. (Zugl.: Kaiserslautern, TU, Diss., 2016) (ISBN 978-3-8396-1179-1)

Hofmaier, J.; Haehnle, J.; Kurz, C.; Landry, G.; Maihoefer, C.; Schüttrumpf, L.; Süss, P.; Teichert, K.; Söhn, M.; Spahr, N.; Brachmann, C.; Weiler, F.; Thieke, C.; Küfer, K.-H.; Belka, C.; Parodi, K.; Kamp, F.
Multi-criterial patient positioning based on dose recalculation on scatter-corrected CBCT images: Dose guided positioning
In: Radiotherapy & oncology 125 (2017), Nr.3, S.464-469

Hofmaier, J.; Haehnle, J.; Kurz, C.; Landry, G.; Maihöfer, C.; Süss, P.; Teichert, K.; Traulsen, N.; Brachmann, C.; Weiler, F.; Thieke, C.; Küfer, K.-H.; Parodi, K.; Kamp, F.
Multi-criterial patient positioning based on dose recalculation on scatter-corrected CBCT images
In: Radiotherapy & oncology 123 (2017), Supplement 1, S.S257-S25830926-X)

Hofmann, T.; Müller, R.; Andrä, H.
A fast immersed interface method for the Cahn-Hilliard equation with arbitrary boundary conditions in complex domains
In: Computational materials science 140 (2017), S.22-31

Hofmann, Tobias; Andrä, H.; Müller, R.; Zausch, J.
Stress simulation in lithium-ion batteries
In: Scheven, M. von ; German Association for Computational Mechanics -GACM-: 7th GACM Colloquium on Computational Mechanics for Young Scientists from Academia and Industry 2017. Proceedings: 11 -13 Oct. 2017, Stuttgart, Germany Stuttgart: University Stuttgart, 2017, S.432-435

Hübner, F.; Leithäuser, C.; Bazrafshan, B.; Siedow, N.; Vogl, T.J.
Validation of a mathematical model for laser-induced thermotherapy in liver tissue
In: Lasers in medical science 32 (2017), Nr.6, S.1399-1409

Iliev, D.; Iliev, O. (Hrsg.); Margenov, S. (Hrsg.)
Numerical algorithms for fluid interaction with a thin porous structure
Stuttgart: Fraunhofer Verlag, 2017, IX, 97 S. (Zugl.: Kaiserslautern, TU, Diss., 2016) (ISBN 978-3-8396-1152-4)

Iliev, O.; Lakdawala, Z.; Neßler, K. H. L.; Prill, T.; Vutov, Y.; Yang, Y.; Yao, J.
On the pore-scale modeling and simulation of reactive transport in 3D geometries
In: Mathematical modelling and analysis 22 (2017), Nr.5, S.671-694

Iliev, O.; Nikiforova, M. A.; Semenov, Y. V.; Zakharov, P. E.
Splitting algorithm for numerical simulation of Li-ion battery electrochemical processes
In: Egorov, I.E.: 8th International Conference on Mathematical Modeling, ICMM 2017. Proceedings: Yakutsk, Russia, 4-8 July 2017 Melville/NY: AIP Publishing, 2017, Art. 030019 (AIP Conference Proceedings 1907)

Isetti, C.; Nannei, E.; Lazzari, S.; Hariri, S.; Iliev, O.; Prill, T.
New climate-control units for more energy-efficient Electric Vehicles: The innovative Three-Fluids Combined Membrane Contactor
In: Institute of Electrical and Electronics Engineers -IEEE-: Twelfth International Conference on Ecological Vehicles and Renewable Energies, EVER 2017: Monte-Carlo, Monaco 11-13 April 2017 Piscataway, NJ: IEEE, 2017, S.679-683

Jami, Neil
Container fleet management in closed-loop supply chains
Stuttgart: Fraunhofer Verlag, 2017, VII, 231 S. (Zugl.: Kaiserslautern, Univ., Diss., 2016) (ISBN 978-3-8396-1210-1)

Jörg, C.; Letscher, F.; Fleischhauer, M.; Freymann, G. von
Dynamic defects in photonic Floquet topological insulators
In: New journal of physics. Online journal 19 (2017), Nr.8, Art. 083003, 11 S.

Kabel, M.; Fink, A.; Schneider, M.
The composite voxel technique for inelastic problems
In: Computer methods in applied mechanics and engineering 322 (2017), S.396-418

Kabel, M.; Kirsch, R.; Rief, S.; Staub, S.; Osterroth, S.
Coupling of CFD and structural mechanics simulation for the prediction of manufacturing effects on filter media
In: Internat. Association for the Engineering Analysis Community.: NAFEMS World Congress 2017. Proc.: Incorporating the 3rd Intern. Conf. on SPDM, 2017; Stockholm, Sweden, 2017, Paper NWC17-412-M

Kameswara Rao, P. V.; Rawal, A.; Kumar, V.; Rajput, K. G.
Compression-recovery model of absorptive glass mat (AGM) separator guided by X-ray micro-computed tomography analysis
In: Journal of power sources 365 (2017), S.389-398

Kleinert, J.; Simeon, B.; Dreßler, K.
Nonsmooth contact dynamics for the large-scale simulation of granular material
In: Journal of computational and applied mathematics 316 (2017), S.345-357

Klier, J.; Jonuscheit, J.; Freymann, G. von; Weber, S.
Jede Schicht entscheidet
In: InVision (2017), Nr.5, S.58-59

Korn, R.; Temocin, B.Z.; Wenzel, J.
Applications of the central limit theorem for pricing Cliquet-style options
In: European actuarial journal 7 (2017), Nr.2, S.465-480

Krebs, J.
A Bernstein inequality for exponentially growing graphs
In: Communications in statistics. Theory and methods (2017), Online First, 10 S.

Krebs, J.
Consistency and asymptotic normality of stochastic Euler schemes for ordinary differential equations
In: Statistics & probability letters 125 (2017), S.1-8

Krebs, J. T. N.; Franke, J. (Hrsg.); Sachs, R. von (Hrsg.)
Sieve estimators for spatial data: Nonparametric regression and density models with wavelets for strong mixing random fields
Stuttgart: Fraunhofer Verlag, 2017, 123 S. (Zugl.: Kaiserslautern, TU, Diss., 2017) (ISBN 978-3-8396-1186-9)

Kühn, M.; Keuper, J.; Pfreundt, F.-J.
Using GPI-2 for distributed memory parallelization of the caffe toolbox to speed up deep neural network training
In: International Academy, Research, and Industry Association: Seventh International Conference on Advanced Communications and Computation, INFOCOMP 2017: June 25 -29, 2017, Venice, Italy IARIA, 2017, S.75-79

Kurnatowski, M. von; Bortz, M.; Klein, P.; Kintzel, B.; Cremers, C.
Quantitative kinetic analysis of a $PdAu_3$ alloy catalyst for oxygen electro-reduction
In: Journal of the Electrochemical Society 164 (2017), Nr.14, S.H1072-H1080

Kurnatowski, M. von; Bortz, M.; Scherrer, A.; Hoffmann, A.; Lorenz, H.-M.; Caraucan, M.; Grützner, T.; Künzle, N.; Küfer, K.-H.

Multi-criteria optimization of an industrial world-scale process
In: Chemie-Ingenieur-Technik 89 (2017), Nr.11, S.1471-1478

Küsters, F.; Patil, D.; Tesi, P.; Trenn, S.
Indiscernible topological variations in DAE networks with applications to power grids
In: IFAC-PapersOnLine 50 (2017), Nr.1, S.7333-7338

Küsters, F.; Trenn, S.; Wirsen, A.
Switch observability for homogeneous switched DAEs
In: IFAC-PapersOnLine 50 (2017), Nr.1, S.9355-9360

Leithäuser, C.; Pinnau, R.
The production of filaments and nonwoven materials: The design of the polymer distributor
In: Ghezzi, L. ; European Consortium for Mathematics in Industry: Math for the Digital Factory Cham: Springer International Publishing, 2017, S.321-340 (Mathematics in industry 27)

Leithäuser, C.; Pinnau, R.; Feßler, R.
Approximate controllability of linearized shape-dependent operators for flow problems
In: Control, optimisation and calculus of variations: COCV 23 (2017), Nr.3, S.751-771

Lindner, F.; Marheineke, N.; Stroot, H.; Vibe, A.; Wegener, R.
Stochastic dynamics for inextensible fibers in a spatially semi-discrete setting
In: Stochastics and Dynamics 17 (2017), Nr.2, Art. 1750016, 29 S.

Linn, J.; Dreßler, K.
Discrete cosserat rod models based on the difference geometry of framed curves for interactive simulation of flexible cables
In: Ghezzi, L. ; European Consortium for Mathematics in Industry: Math for the Digital Factory Cham: Springer International Publishing, 2017, S.289-319 (Mathematics in industry 27)

Linn, J.; Hermansson, T.; Andersson, F.; Schneider, F.
Kinetic aspects of discrete cosserat rods based on the difference geometry of framed curves
In: Valasek, M.; Czech Technical University, Prag; European Community on Computational Methods in Applied Science: 8th ECCOMAS Thematic Conference on Multibody Dynamics 2017. Conference Proceedings: Prague, June 19 -22, 2017 Prag: Czech Technical University, 2017, S.163-176

Liu, P.; Yao, J.; Couples, G.D.; Ma, J.; Iliev, O.
3-D modelling and experimental comparison of reactive flow in carbonates under radial flow conditions
In: Scientific Reports 7 (2017), Art. 17711, 10 S.

Loroch, D.; Pfreundt, F.-J.; Wehn, N.; Keuper, J.
TensorQuant: A simulation toolbox for deep neural network quantization
In: Association for Computing Machinery -ACM-: MLHPC 2017, Machine Learning on HPC Environments. Proceedings: Denver, CO, USA, November 12 -17, 2017 New York: ACM, 2017, Art. 1, 8 S.

Lu, Y.; Marheineke, N.; Mohring, J.
Interpolation strategy for BT-based parametric MOR of gas pipeline-networks
In: Benner, P.: Model Reduction of Parametrized Systems Cham: Springer International Publishing, 2017, S.387-401 (Modeling, simulation & applications 17)

Maag, Volker
Designing hybrid energy systems for buildings
In: Herskovits, J. ; Federal University of Rio de Janeiro, Brazil: EngOpt 2016, 5th International Conference on Engineering Optimization. Proceedings: Iguassu Falls, June 19 to 23, 2016 Rio de Janeiro, 2017, S.178-187

Merten, Dirk; Pfreundt, Franz-Josef
ALOMA – an auto-parallelization tool for seismic processing
In: European Association of Geoscientists and Engineers: Energy, technology, sustainability -time to open a new chapter: 79th EAGE Conference and Exhibition 2017; Paris France, 12-15 June 2017 Red Hook, NY: Curran, 2017, S.399-403

Michel, I., Bathaeian, S.M.I., Kuhnert, J., Kolymbas, D., Chen, C.-H., Polymerou, I., Vrettos, C., Becker, A.
Meshfree generalized finite difference methods in soil mechanics-part II: numerical results
(2017) GEM - Internat. Journal on Geomathematics, 8 (2), pp. 191-217

Migunova, Anastasia
Outer-plane properties of thin heterogeneous periodic layers
Stuttgart: Fraunhofer Verlag, 2017, VI, 110 S. (Zugl.: Kaiserslautern, TU, Diss., 2016) (ISBN 978-3-8396-1159-3)

Molter, D.; Trierweiler, M.; Ellrich, F.; Jonuscheit, J.; Freymann, G. von
Interferometry-aided terahertz time-domain spectroscopy
In: Optics Express 25 (2017), Nr.7, S.7547-7558

Nickel, Stefan; Velten, Sebastian
Optimization problems with flexible objectives: A general modeling approach and applications
In: European Journal of Operational Research 258 (2017), Nr.1, S.79-88

Niedziela, D.; Rau, S.; Steiner, K.; Vita, S. de; Lutsche, M.; Richter, M.; Schmidt, M.; Stoltz, C.
Virtual characterization of dense granular flow through a vertically rotating feeding experiment
In: Chemical Engineering and Technology 40 (2017), Nr.9, S.1599-1604

Niedziela, M., Wlazło, J.
Notes on computational aspects of the fractional-order viscoelastic model
(2017) Journal of Engineering Mathematics, pp. 1-15. DOI: 10.1007/s10665-017-9911-0

Noroozi, S.; Alamdari, H.; Arne, W.; Larson, R.G.; Taghavi, S.M.
Regularized string model for nanofibre formation in centrifugal spinning methods
In: Journal of Fluid Mechanics 822 (2017), S.202-234

Obentheuer, M.; Roller, M.; Björkenstam, S.; Berns, K.; Linn, J.
Human like motion generation for ergonomic assessment - a muscle driven Digital Human Model using muscle synergies
In: Valasek, M. ; Czech Technical University, Prag; European Community on Computational Methods in Applied Science: 8th ECCOMAS Thematic Confer. on Multibody Dynamics 2017. Confer. Proc.: Prague, June 19 -22, 2017 Prag: Czech Technical University, 2017, S.847-856

Oden, Lena; Fröning, Holger
InfiniBand-Verbs on GPU: A case study of controlling an InfiniBand network device from the GPU
In: International Journal of high Performance Computing Applications 31 (2017), Nr.4, S.274-284

Orlik, J.; Andrä, H.; Argatov, I.; Staub, S.
Does the weaving and knitting pattern of a fabric determine its relaxation time?
In: The quarterly journal of mechanics and applied mathematics: QJMAM 70 (2017), Nr.4, S.337-361

Osterroth, S.; Iliev, O.; Pinnau, R.
On efficient approaches for solving a cake filtration model under parameter variation
In: Benner, P.: Model Reduction of Parametrized Systems Cham: Springer International Publishing, 2017, S.455-470 (Modeling, simulation & applications 17)

Phutane, U.; Roller, M.; Björkenstam, S.; Linn, J.; Leyendecker, S.
Kinematic validation of a human thumb model
In: Valasek, M. ; Czech Technical University, Prag; European Community on Comp. Methods in Applied Science: 8th ECCOMAS Thematic Conference on Multibody Dynamics 2017. Confer. Proceedings: Prague, June 19 -22, 2017 Prag: Czech Technical University, 2017, S.857-866

Prill, T.; Jeulin, D.; Willot, F.; Balach, J.; Soldera, F.
Prediction of effective properties of porous carbon electrodes from a parametric 3D random morphological model

In: Transport in porous media: TIPM 120 (2017), Nr.1, S.141-165

Rawal, A., Kumar, V., Hietel, D., Dauner, M.
Modulating the Poisson's ratio of articular cartilage via collagen fibril alignment
(2017) Materials Letters, 194, pp. 45-48

Rawal, A.; Kumar, V.; Saraswat, H.; Weerasinghe, D.; Wild, K.; Hietel, D.; Dauner, M.
Creating three-dimensional (3D) fiber networks with out-of-plane auxetic behavior over large deformations
In: Journal of Materials Science: JMS 52 (2017), Nr.5, S.2534-2548

Reinhard, R.; Kleer, M.; Dreßler, K.
The impact of subjective simulator experiences on usability and driving behavior in a state of the art driving simulator
In: Kemeny, A. ; Driving Simulation Association.: DSC 2017 Europe VR, Driving Simulation Conference & Exhibition 2017. Proceedings: University of Stuttgart, Germany, September 6-8, 2017 Antony/ France: DSA, 2017, S.123-124

Reinhard, R.; Rutrecht, H.M.; Hengstenberg, P.; Tutulmaz, E.; Geissler, B.; Hecht, H.; Muttray, A.
The best way to assess visually induced motion sickness in a fixed-base driving simulator
In: Transportation research. Part F, Traffic psychology and behaviour 48 (2017), S.74-78

Reséndiz-Flores, E.; Kuhnert, J.; Saucedo-Zendejo, F.
Application of a generalized finite difference method to mould filling process
In: European journal of applied mathematics (2017), Online First, 20 S.

Roller, M.; Björkenstam, S.; Linn, J.; Leyendecker, S.
Optimal control of a biomechanical multibody model for the dynamic simulation of working tasks
In: Valasek, M. ; Czech Technical University, Prag; European Community on Computational Methods in Applied Science: 8th ECCOMAS Thematic Conference on Multibody Dynamics 2017. Conference Proceedings: Prague, June 19 -22, 2017 Prag: Czech Technical University, 2017, S.817-826

Roller, M.; Gallrein, A.; Linn, J.; Betsch, P.
A tire model based on geometrically exact shells for modal analysis in steady state rolling
In: Ambrósio, J.A.C.; European Mechanics Society: Rolling contact mechanics for multibody system dynamics: EUROMECH Colloquium 578, Funchal, Madeira, Portugal, 10-13 April 2017 Funchal, 2017, Paper 44, 23 S.

Schappals, M.; Mecklenfeld, A.; Kröger, L.; Botan, V.; Köster, A.; Stephan, S.; García, E.J.; Rutkai, G.; Raabe, G.; Klein, P.; Leonhard, K.; Glass, C.W.; Lenhard, J.; Vrabec, J.; Hasse, H.
Round robin study: Molecular simulation of thermodynamic properties from models with internal degrees of freedom
In: Journal of chemical theory and computation: JCTC 13 (2017), Nr.9, S.4270-4280

Scheuerlein, C.; Rack, A.; Schladitz, K.; Huwig, L.
Synchrotron microtomography investigation of the filament microstructure in differently processed Bi-2212 wires
In: IEEE transactions on applied superconductivity 27 (2017), Nr.4, Art. 6400205, 5 S.

Schießl, S; Marheineke, N. (Hrsg.); Meister, A. (Hrsg.)
Jet and fiber dynamics with high elongations: Models, numerical strategies and applications
Stuttgart: Fraunhofer Verlag, 2017, 187 S. (Zugl.: Erlangen-Nürnberg, Univ., Diss., 2017) (ISBN 978-3-8396-1241-5)

Schladitz, K.; Büter, A.; Godehardt, M.; Wirjadi, O.; Fleckenstein, J.; Gerster, T.; Hassler, U.; Jaschek, K.; Maisl, M.; Maisl, U.; Mohr, S.; Netzelmann, U.; Potyra, T.; Steinhauser, M. O.
Non-destructive characterization of fiber orientation in reinforced SMC as input for simulation based design
In: Composite structures 160 (2017), S.195-203

Schmeißer, A.; Burkhart, D.; Linn, D.; Schnebele, J.; Ettmüller, M.; Gramsch, S.; Arne, W.
Ensight4Matlab: read, process, and write files in EnSight® Gold format from C++ or MATLAB®
In: The journal of open source software: JOSS. Online journal 2 (2017), Paper 217

Schneider, F.; Burger, M.; Arnold, M.; Simeon, B.
A new approach for force-displacement co-simulation using kinematic coupling constraints
In: Zeitschrift für angewandte Mathematik und Mechanik: ZAMM 97 (2017), Nr.9, S.1147-1166

Schneider, F.; Linn, J.; Hermansson, T.; Andersson, F.
Cable dynamics and fatigue analysis for digital mock-up in vehicle industry
In: Valasek, M. ; Czech Technical University, Prag; European Community on Computational Methods in Applied Science: 8th ECCOMAS Thematic Conference on Multibody Dynamics 2017. Conference Proceedings: Prague, June 19 -22, 2017 Prag: Czech Technical University, 2017, S.763-769

Schneider, M.
An FFT-based fast gradient method for elastic and inelastic unit cell homogenization problems
In: Computer methods in applied mechanics and engineering 315 (2017), S.846-866

Schneider, M.
Beyond polyconvexity: An existence result for a class of quasi-convex hyperelastic materials
In: Mathematical Methods in the Applied Sciences 40 (2017), Nr.6, S.2084-2089

Schneider, M.
The sequential addition and migration method to generate representative volume elements for the homogenization of short fiber reinforced plastics
In: Computational mechanics 59 (2017), Nr.2, S.247-263

Schneider, Matti; Merkert, Dennis; Kabel, Matthias
FFT-based homogenization for microstructures discretized by linear hexahedral elements
In: International journal for numerical methods in engineering 109 (2017), Nr.10, S.1461-1489

Schreiner, N.; Baccouche, B.; Sauer-Greff, W.; Urbansky, R.; Friederich, F.
High-resolution FMCW millimeter-wave and terahertz thickness measurements
In: Institute of Electrical and Electronics Engineers; European Microwave Association; Institution of Engineering and Technology: 47th European Microwave Conference, EuMC 2017: European Microwave Week 2017, 10-12 October 2017, Nuremberg, Germany Piscataway, NJ: IEEE, 2017, S.339-342

Schuler, F.; Breit, W.; Schnell, J.; Schladitz, K.
Computertomografie -den Fasern auf der Spur: Untersuchungen zum Faktor zur Berücksichtigung der Faserorientierung Î° F f nach DAfStb-Richtlinie „Stahlfaserbeton" am Beispiel von Tunneltübbings
In: Bautechnik 94 (2017), Nr.10, S.689-696

Schütte, J.; Fridgen, G.; Prinz, W.; Rose, T.; Urbach, N.; Hoeren, T.; Guggenberger, N.; Welzel, C.; Holly, S.; Schulte, A.; Sprenger, P.; Schwede, C.; Weimert, Birgit; Otto, B.; Dalheimer, M.; Wenzel, M.; Kreutzer, M.; Fritz, Michael; Leiner, U.; Nouak, A.; Prinz, W. (ed.); Schulte, A. T. (ed.)
Blockchain und Smart Contracts: Technologien, Forschungsfragen und Anwendungen
München: Fraunhofer-Gesellschaft, 2017, 50 S.

Shiryaev, Vladimir; Orlik, Julia
A one-dimensional computational model for hyperelastic string structures with Coulomb friction
In: Mathematical Methods in the Applied Sciences 40 (2017), Nr.3, S.741-756

Sliseris, J.; Andrä, H.; Kabel, M.; Dix, B.; Plinke, B.
Virtual characterization of MDF fiber network

SCIENTIFIC GRADUATION THESES

In: European journal of wood and wood products 75 (2017), Nr.3, S.397-407

Steidel, S.; Burger, M.
Co-simulation in the vehicle development process
In: Scheven, M. von ; German Association for Computational Mechanics: 7th GACM Colloquium on Computational Mechanics for Young Scientists from Academia and Industry 2017. Proceedings: 11-13 October 2017, Stuttgart, Germany: University Stuttgart, 2017, S.363-366

Stephani, H.; Weibel, T.; Moghiseh, A.
Modellbasiertes Lernen in der Oberflächeninspektion
In: Automatisierungstechnik: AT 65 (2017), Nr.6, S.406-415

Suchde, P.; Kuhnert, J.; Schröder, S.; Klar, A.
A flux conserving meshfree method for conservation laws
In: International journal for numerical methods in engineering 112 (2017), Nr.3, S.238-256

Temocin, B.Z.; Korn, R.; Selcuk-Kestel, A.S.
Constant proportion portfolio insurance in defined contribution pension plan management
In: Annals of operations research (2017), Online First, 20 S.

Tröltzsch, J.; Schäfer, K.; Niedziela, D.; Ireka, I.; Steiner, K.; Kroll, L.
Simulation of RIM-process for polyurethane foam expansion in fiber reinforced sandwich structures
In: Procedia CIRP 66 (2017), S.62-67

Walter, R.
A note on minimizing the sum of squares of machine completion times on two identical parallel machines
In: Central European journal of operations research: CEJOR 25 (2017), Nr.1, S.139-144

Walter, R.; Wirth, M.; Lawrinenko, A.
Improved approaches to the exact solution of the machine covering problem
In: Journal of scheduling 20 (2017), Nr.2, S.147-164

Weber, S.; Waller, E.H.; Kaiser, C.; Freymann, G. von
Time-stretched real-Time measurement technique for ultrafast absorption variations with TS/s sampling-rate
In: Optics Express 25 (2017), Nr.13, S.14125-14133

Weber, S.; Ellrich, F.; Paustian, S.; Güttler, N.; Tiedje, O.; Jonuscheit, J.; Freymann, G. von
Thickness determination of wet coatings using self-calibration method
In: Institute of Electrical and Electronics Engineers -IEEE-; IEEE Microwave Theory and Techniques Society: 42nd International Conference on Infrared, Millimeter, and Terahertz Waves 2017: Cancun, Quintana Roo, Mexico, August 27-September 1, 2017 Piscataway, NJ: IEEE, 2017, 2 S.

Weisenstein, C.; Kahl, M.; Friederich, F.; Bolivar, P.H.
Conception and realization of a semiconductor based 240 GHz full 3D MIMO imaging system
In: Sadwick, L.P. ; Society of Photo-Optical Instrumentation Engineers -SPIE-, Bellingham/Wash.: Terahertz, RF, Millimeter, and Submillimeter-Wave Technology and Applications X: 30 January-2 February 2017, San Francisco, California, United States Bellingham, WA: SPIE, 2017, Paper 101030B, 7 S. (Proceedings of SPIE 10103)

Werth, S.; Stöbener, K.; Horsch, M.; Hasse, H.
Simultaneous description of bulk and interfacial properties of fluids by the Mie potential
In: Molecular physics 115 (2017), Nr.9-12, S.1017-1030

Wirjadi, O.; Kim, Y.-J.; Stech, F.; Bonfert, L.; Wagner, M.
Bayesian model for detection and classification of meningioma nuclei in microscopic images
In: Journal of microscopy 265 (2017), Nr.2, S.159-168

Yakut, Nataliya; Krüning, Kai; Foltin, Gregor; Burger, Jakob; Krauss, Michael; Asprion, Norbert; Bortz, Michael; Roth, Matthias
Modelldurchgängigkeit in der Prozessindustrie am Beispiel virtueller Inbetriebnahme
In: Chemie-Ingenieur-Technik 89 (2017), Nr.11, S.1444-1453

Zhang, X.X.; Wang, D.; Xiao, B.L.; Andrä, H.; Gan, W.M.; Hofmann, M.; Ma, Z.Y.
Enhanced multiscale modeling of macroscopic and microscopic residual stresses evolution during multi-thermo-mechanical processes
In: Materials and design 115 (2017), S.364-378

Complete bibliographic information can be found at: publica.fraunhofer.de/institute/itwm/2017

Bacchouche, Bessem
FMCW Terahertz Volumetric Imaging with Sparse Multistatic Line Arrays
Doctoral thesis, University Kaiserslautern, Dept. of Electrical Engineering

Berner, Tim
Verteilte Algorithmen für gewichtete Matchings
Bachelor thesis, University Kaiserslautern, Dept. of computer science

Coskun, Sema
Application of the Heath-Platen Estimator in Pricing Barrier and Bond Options
Doctoral thesis, University Kaiserslautern, Dept. of Mathematics

Derouet, Maximilian
PF-MPC approach for the Furuta pendulum
Master thesis, University Kaiserslautern, Dept. of Mathematics

Easwaran, Prakash
Stochastic Geometry Models for Interacting Fibers
Doctoral thesis, University Kaiserslautern, Dept. of Mathematics

Eckstein, Christian
Ermittlung repräsentativer Lastkollektive zur Betriebsfestigkeit von Ackerschleppern
Doctoral thesis, University Kaiserslautern, Dept. of Mechanical Engineering

Eimer, Matthias
High order numerical schemes for district heating
Master thesis, University Kaiserslautern, Dept. of Mathematics

Frevel, Thorsten
Erzeugen und Kolorieren von 3D-Punktwolken mittels Messdaten des mobilen Multi-Sensor-Messsystems REDAR
Bachelor thesis, University of Applied Sciences Kaiserslautern, Dept. of Applied Engineering Sciences

Gräf, Benedict
Charakterisierung der Verstärkung polarisationsgemultiplexter fs-Pulse in Erbium-dotierten Glasfasern

Diploma thesis, University Kaiserslautern, Dept. of Physics

Grün, Sarah
Discrete Dividends: Modeling, Estimation and Portfolio Optimization
Doctoral thesis, University Kaiserslautern, Dept. of Mathematics

Hoffmann, Daniel
Aspects of Pricing Cliquet Options
Master thesis, University Kaiserslautern, Dept. of Mathematics

Jaeger, Philippe
Constant Proportion Portfolio Insurance
Master thesis, University Kaiserslautern, Dept. of Mathematics

Jami, Neil
Container Fleet Management in Closed-Loop Supply Chains
Doctoral thesis, University Kaiserslautern, Dept. of Mathematics

Jung, Christian
Bildanalytische Erkennung von Rissen in Asphalt basierend auf dem Dijkstra-Algorithmus
Bachelor thesis, University Kaiserslautern, Dept. of Mathematics

Kelly, Una
A Statistical Analysis of 3D Wire Shapes in Rutherford Cables
Master thesis, University Kaiserslautern, Dept. of Mathematics

Koslow, Viktor
Automatisiertes Generieren von Straßennetzwerken für den virtuellen Fahrversuch anhand von realen Messdaten
Bachelor thesis, University of Applied Sciences Kaiserslautern, Dept. of Applied Engineering Sciences

Krebs, Johannes Nikolas
Sieve Estimators for Spatial Data
Doctoral thesis, University Kaiserslautern, Dept. of Mathematics

Lange, Eike
Automatisierung der optischen Inspektion von Einfadenstents
Bachelor thesis, University of Applied Sciences Kaiserslautern

Losch, Katharina
Stochastic Modeling of Multiphase Materials Based on Digital Image Data
Doctoral thesis, University Kaiserslautern, Dept. of Mathematics

Mahler, Philipp
Einfluss der Handelshäufigkeit bei Anwendungen von CPPIs
Master thesis, University Kaiserslautern, Dept. of Mathematics

Manvelyan, Diana
Niche competition in acute leukemia: Mathematical modeling and model order reduction using POD Method
Bachelor thesis, University Kaiserslautern, Dept. of Mathematics

Narendrakumar, Manoj Kumar
Real-time implementation of an undercarriage model of a wheeled excavator
Master thesis, University Kaiserslautern, Dept. of mechanical engineering

Nurkanovic, Merima
The Split Tree for Option Pricing
Doctoral thesis, University Kaiserslautern, Dept. of Mathematics

Osterroth, Sebastian
Mathematical models for the simulation of combined depth and cake filtration processes
Doctoral thesis, University Kaiserslautern, Dept. of Mathematics

Pfeiffer, Tobias
Interferometric vibration correction for thickness measurements using terahertz technology in industrial environments
Master thesis, University Kaiserslautern, Dept. of Physics

Schießl, Stefan
Jet and fiber dynamics with high elongations: Models, numerical strategies and applications
Doctoral thesis, FAU Erlangen-Nürnberg, Dept. of Mathematics

Schuh, Janina
Varianten der Vermögensentwicklung eines Lebensversicherungsvertrags
Master thesis, University Kaiserslautern, Dept. of Mathematics

Schwalbach, Christian
Interaktive Pkw-Simulation mit RODOS – Einfluss der Modellkomplexität auf die Immersion
Master thesis, University Kaiserslautern, Dept. of Mechanical Engineering

Seifarth, Tobias
Numerische Algorithmen für gitterfreie Methoden zur Lösung von Transportproblemen
Doctoral thesis, University Kassel, Dept. of Mathematics

Theis, Alexander
Design und Optimierung eines FMCW Terahertz-Messsystems für die Schichtdickenmessung
Diploma thesis, University Kaiserslautern, Dept. of Physics

Vogg, Richard
Quantitative 3D Image Analysis of Foreign Body Giant Cells
Master thesis, University Kaiserslautern, Dept. of Mathematics

Wilhelm, Carl
Worst-Case Portfolio-Optimierung im Binomialmodell
Master thesis, University Kaiserslautern, Dept. of Mathematics

Winarske, Jens
Bildsegmentierung mit Gaußschen Mischungsmodellen
Bachelor thesis, University Kaiserslautern, Dept. of Mathematics

Wlazlo, Jaroslaw
Medical Image Registration with Exact Mass Preservation
Doctoral thesis, University Kaiserslautern, Dept. of Mathematics

Zurloh, Corinna
PDE-basierte Grauwertmorphologie zur Erweiterung des Ansatzes auf Farbbilder
Bachelor thesis, University Kaiserslautern, Dept. of Mathematics

Arne, W.; Feßler, R.; Wegener, R.; Wieland, M.
Modeling and simulation of dry spinning processes
International Textile Conference, Stuttgart, December

Arne, W.; Marheineke, N.; Wegener, R.; Wieland, M.
Setup and numerical solution of a viscous Cosserat rod model describing electrospinning
NART 2017, Liberec (CZ), October

Baccouche, B., Friederich, F.
Bildgebende Terahertz-Prüfung für die Inline-Kontrolle
DGZFP Jahrestagung, Koblenz, May

Baccouche, B.; Agostini, P.; Friederich, F.
Digital Beamforming Algorithms for 3D Terahertz Imaging with Sparse Line Arrays,
German Terahertz Conference, Bochum, March

Baccouche, B.; Agostini, P.; Mohammadzadeh, S.; Kahl, M.; Weisenstein, C.; Jonuscheit, J.; Keil, A., Löffler, T.; Sauer-Greff, W.; Urbansky, R.; Haring Bolívar, P.; Friederich, F.
Sparse multistatic line-array-based 3D terahertz imaging system with real-time capability for industrial applications
SPIE Photonics West 2017, San Francisco (USA), January

Baccouche, B.; Sauer-Greff, W., Urbansky, R.; Friederich, F.
Application of the Phase Coherence Method for Imaging with Sparse Multistatic Line Arrays
IEEE MTT-S Intern. Microwave Symposium, Honolulu (USA), June

Baccouche, B.; Sauer-Greff, W., Urbansky, R.; Friederich, F.
Enhanced 3D CW Terahertz Imaging With Ultra Sparse Arrays Using A Phase Coherence Method
42nd International Conference on Infrared, Millimeter, and Terahertz Waves, Cancun (Mex), August

Bäcker, M.; Burger, M.; Steidel, S.
Local Extrapolation in a Parallel Coupling Scheme with an Application to Vehicle–Tire Interaction
Darmstadt, September

Bastian, P.; Engwer, C.; Göddeke, D.; Iliev, O.; Ippisch, O.; Ohlberger, M.;. Turek, S.
Latest Advances in ExaDUNE. Flexible PDE Solvers, Numerical Methods and Applications
HPC Summit Barcelona (E), May

Beck, J.; Matuschczyk, U.; Jonuscheit, Joachim, Friederich, Fabian
Inline-Produktionskontrolle bei der Herstellung von Pressmänteln mittels Terahertz-Messtechnik
3. Fachseminar des FA MTHz: Mikrowellen- und Terahertz-Prüftechnik in der Praxis, Würzburg, April

Bitsch, G.; Dreßler, K.
Kooperationsprogramm Mechatronik/Qualifikation von Simulationsmodellen
München, May

Bitsch, G.; Dreßler, K.; Kleer, M.; Pena Vina, E.
Absicherung von Fahrzeugfunktionen unter Berücksichtigung der Umgebung und des Fahrzeugverhaltens
Friedrichshafen, October

Björkenstam, S.; Nyström, J.; Carlson, J.; Roller, M.; Linn, J.; Hanson, L.; Högberg, D.; Leyendecker, S.
A framework for motion planning of digital humans using discrete mechanics and optimal control
Bonn, June

Bortz, M.; Babutzka, J.; Dinges, A.; Foltin, G.; Süss, P.; Teichert, K.
Models from Experiments: Tools supporting Product Development in the Lab
Tag der Verfahrenstechnik, Kaiserslautern, October

Bramble, J.; Savage, N.; Jonuscheit, Joachim; Friederich, Fabian
Berührungslose, zerstörungsfreie Prüfung von Radomen mittels Terahertz-Messechnik
3. Fachseminar des FA MTHz: Mikrowellen- und Terahertz-Prüftechnik in der Praxis, Würzburg, April

Burger, M.; Speckert, M.
Speed Profile Generation based on geo-referenced Data using Optimal Control Methods
Weimar, March

Burger, M.; Dreßler, K.; Ekevid, T.; Steidel, S.; Weber, D.
Coupling a DEM material model to multibody construction equipment
Prag (CZ), June

Calabrese, F.; Bäcker, M.; Gallrein, A.
Advanced tire simulation with CDTire in VI-CarRealTime
Turin (I), May

Calabrese, F.; Bäcker, M.; Gallrein, A.; Ludwig, C.
A study of parameter identification for a thermal-mechanical tire model based on Flat Track Measurements
Hannover, October und Queensland (AUS), August

Dalheimer, Mathias
Ladeinfrastruktur für Elektroautos: Ausbau statt Sicherheit
34. Chaos Communication Congress, Leipzig, December

Dalheimer, Mathias
The power grid is vulnerable – and it's really hard to fix this.
DeepINTEL, Wien, September

Deshpande Ruturaj; Kabel, M.; Kirsch, R.; Rief, S.; Staub, S.; Osterroth, S.
Vom Filtermedium zum Filterelement - Simulation unter Berücksichtigung von Fertigungseinflüssen
Industrieworkshop Digitale Technologien für Fasern, Vliesstoffe und technische Textilien, Kaiserslautern, September

Diller, Rolf; Hauth, Jan
Modelling and assessment of spectroscopic data by Bayesian estimation methods
4th BioComp Symposium, Münchweiler an der Alsenz, October

Dobrovolskij, D.; Spies, M.; Hirsekorn, S.
Ultraschall-Simulation unter Berücksichtigung einfacher Streuvorgänge auf Basis eines Mikrostruktur-Modells für polykristalline Werkstoffe
DGZfP Jahrestagung 2017, Koblenz, May

Dobrovolskij, Dascha
Charakterisierung der Mikrostruktur von Faserverbundwerkstoffen
FVTT, Kaiserslautern, September

Dobrovolskij, Dascha
Modelling of Ultrasonic Scattering in Polycrystalline Materials
12th European Congress for Stereology and Image Analysis 2017

Dörlich, V.; Andersson, F.; Linn, J.
Piecewise linear elastic behavior of Bowden cables
Speyer, June

Dörlich, V.; Cesarek, P.; Linn, J.; Diebels, S.
Experimental investigation and numerical modeling of resultant-based bending plasticity in cables
Prag (CZ), June

Dreßler, K.; Speckert, M.
Environmental Data and Usage Variability in Vehicle Engineering
Speyer, June und Stuttgart, July

Dreßler, K.; Speckert, M.
How to handle usage variability in durability engineering
Hanau, April

Dreßler, K.; Stephan, T.
Simulationsgestützte Optimierung und Absicherung flexibler Bauteile
Landshut, September

Eisenträger, Almut; Kuhnert, Jörg; Wächtler, Timo
MESHFREE: General Finite Differences for Fluid Flow and Continuum Mechanics with Three Industrial Applications
USNCCM 14, Montreal (CAN), July

Ellrich, F.; Klier, J.; Weber, S.; Jonuscheit, J.; von Freymann, G.
Thickness Determination of Wet Coatings Using Self-Calibration Method
SPIE Photonics West, San Francisco (USA), January

Feth, S.; Christiansen, H.
Flexible & effiziente Wöhlermodelle
Ottobrunn, January

Feth, S.; Speckert, M.
Schätzung von 3-Parameter-Weibull-Verteilungen mit Konfidenz bei Durchläufer
München, November

Feth, S.; Speckert, M.
Zwei oder drei Parameter? Vergleich von Weibull-Modellen an einem Anwendungsbeispiel
München, November

Fiedler, J.
Distance correlation for spatial stochastic processes
Helsinki (FIN), July

Föhst, Sonja
Investigation of Fibrosis in Capillary Vessels of Murine Organs
12th European Congress for Stereology and Image Analysis 2017

Friederich, Fabian
Terahertz Imaging in Industry
9th THz-Days, Dunkirk (F), June

Friederich, F.; Jonuscheit, J.
Industrial Radome Inspection with Terahertz Waves
10th UK-Europe-China Workshop on Millimetre Waves and THz Technologies (UCMMT 2017), Liverpool (GB), September

Fuetterling, Valentin
Accelerated single ray tracing for wide vector units
High-Performance Graphics 2017, Los Angeles (USA), July

Fuetterling, Valentin
Efficient Ray Tracing Kernels for Modern CPU Architectures
ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games, San Francisco (USA), February

Gallrein, A.
Advanced Tire Modelling from Multi Body Dynamics to Linearization of the Rotating Tire
Frankenthal, June

Gallrein, A.; Bäcker, M.; Calabrese, F.
Dynamic simulation of the inflation gas of a tire under operational conditions
Prag (CZ), June

Gallrein, A.; Bäcker, M.; Calabrese, F.
Influence of the inflation gas dynamics of a tire on operational conditions
Hannover, October

Gospodnetic, P.; Spies, M.; Rauhut, M.
Image Based Surface Microgeometry Reconstruction - Modeling and Validation
7th European-American Workshop on Reliability of NDE, Potsdam, September

Gramsch, Simone
Virtual nonwoven production processes
INDEX 2017, Genf (CH), April

Griso, G.; Migunova, A.; Orlik, J.
Asymptotic analysis for domains separated by a thin layer made of periodic vertical beams
SIAM Conference on Mathematical and Computational Issues in the Geosciences 2017, Minisymposium über „Effective models for porous media containing thin structures", Erlangen, September

Griso, Georges; Migunova, Anastasia; Orlik, Julia; Sivak, Olena
Asymptotic Analysis and stability for Thin Layer of Beams
Intern. Conference on Elliptic and Parabolic Problems, Minisymposium „Spectral analysis and homogenization of PDEs", Gaeta (I), May

Griso, G.; Orlik, J.; Sivak, O.
Stability end estimates for plates, made of thin periodic beams
Workshop Homogenization Theory and Applications (HomTAp), WIAS, Berlin, October

Grünewald, Daniel
Fault tolerance mechanisms in GASPI/GPI
SC17, BoF. Resilient Programming Environments Denver (USA), November

Grünewald, Daniel
Gaspi Tutorial
Warwick University, Coventry (GB), March

Hering, Julian; Waller, Erik H.; von Freymann, Georg
Additive Fertigung dreidimensionaler Bauteiloberflächen
SFB 926 Doktoranden-Retreat 2017, Mannheim, June

Hering, Julian; Waller, Erik H.; von Freymann, Georg
Automated aberration compensation in high NA systems for arbitrary laser modes
SPIE Photonics West 2017, San Francisco (USA), January and DPG Frühjahrstagung 2017, Mainz, March

Hietel, Dietmar; Arne, Walter
Modeling, simulation and optimization of viscoelastic filaments for spinning processes
INDEX 2017, Genf (CH), April

Hietel, Dietmar; Arne, Walter
Modelling and simulation of spinning processes: fundamentals and comparison for melted and solved Polymers
MFC, Dornbirn (A), September

Hietel, D.; Leithäuser, C.
Simulation und Adaption von Vernadelungsstrukturen
AFBW Symposium Simulation von Nadelvliesstoffen, Albstadt, May

Hinderks, Wieger
Factor Models in the German Electricity Market
International Ruhr Energy Finance Conference, Essen, September

Hirsekorn, S.; Dobrovolskij, D.; Spies, M.
Modelling of Ultrasonic Scattering in Polycrystalls Aiming for Tools to Simulate Experiments in NDT&E
9th Workshop „NDT in Progress"

Hofmann, Tobias
BatteryDict, BEST and beyond
GeoDict User-Meeting, Kaiserslautern, September

Hofmann, Tobias
Lisa Lithium – Wo Ionen wohnen
Fraunhofer Alumni Summit, Stuttgart

Hofmann, Tobias
Stress simulation in lithium-ion batteries
GACM, Stuttgart, October

Hofmann, Tobias
Stress simulation of phase-separating cathode materials
ModVal, March und ACOMEN, Gent (B), September

Iliev, O.; Mohring, J.; Shegunov, N.; Milk, R.; Ohlberger, M.; Klein, O.; Bastian, P.
Toward Exascale Computations of Uncertainty Quantification for Porous Media Flow Using Multilevel Monte Carlo
Large Scale Scientific Computation, Sozopol (BG), June und Invited Seminar Dept. Computer Science, University Uppsala (S), October

Iliev, O.; Prill, T.; Nessler (Leonard), K. H. L. ; Lakdawala, Z.; Printsypar, G.; Andrä, H.; Kabel, M.; Enzmann, F.; Wiegmann, A.; Schwarz, J.-O.
On Digital Rock Physics extended with Chemistry
Invited seminar at SkolTech, Moscow (RUS), November

Iliev, Oleg
Multiscale problems, reactive flows in porous media, uncertainty quantification
Seminar Environmental Science of University Utrecht (NL), August

Iliev, Oleg
On modeling and simulation of multiscale electrochemical processes in Li-ion battery
Invited talk at Interdisciplinary Colloquium University of Uppsala (S), October und Invited talk at IDarcy Center, University of Eindhoven (NL), October

Iliev, Oleg
On simulation of multiscale electrochemical processes in Li-ion battery
Multiscale Methods and Large Scale Scientific Computing, Yakutsk (RUS), August

Iliev, O.; Prill, T.; Mikelic, A.
Different scaling regimes for modeling and simulation of reactive transport in 3D porous media
InterPore, Rotterdam (NL), May

Ireka, I.; Niedziela, D.; Orlik, J.; Rief, S.; Steiner, K.; Tröltzsch, J.; Schäfer, K.; Helbig, F.; Kroll, L.
Modeling and Simulation of polyurethane foam injection moulding to produce fiber reinforced sandwich structures
9th International Conference on Porous Media, Rotterdam (NL), May

Ireka, I.; Niedziela, D.; Orlik, J.; Rief, S.; Steiner, K.
Simulationstechniken zur virtuellen Auslegung textilverstärkter Verbundwerkstoffe
Industrieworkshop: Digitale Technologien für Fasern, Vliesstoffe und technische Textilen, Kaiserslautern, September

Jonuscheit, Joachim
Bildgebende Verfahren zur Detektion von Gefahrstoffen
Carl-Cranz-Gesllschaft, Seminar: 17VS 10.06 Detektion von Explosivstoffen, Pfinztal, November

Jonuscheit, Joachim
Einführung in die Terahertzprüftechnik
3. Fachseminar Mikrowellen- und Terahertz-Prüftechnik in der Praxis, Fürth, April

Jonuscheit, Joachim
Inspektion von glasfaserverstärkten Composite- Materialien: Vergleich der Terahertz-Technik mit klassischen Prüfverfahren
8. Landshuter Leichtbau-Kolloquium, Landshut, March

Jonuscheit, Joachim
Künftige Entwicklungen der Terahertz-Technik zur zerstörungsfreien Prüfung von Verbundmaterialien
DGZfP-Seminar Zerstörungsfreie Prüfung an GFK und GFK-Klebeverbindungen, Wittenberge, August

Jonuscheit, Joachim
Terahertz-Imaging in der Qualitätssicherung und Sicherheitstechnik
Fraunhofer Vision Technologietag October 2017/Jubiläumskongress, Fürth, October

Jonuscheit, Joachim
Terahertz-Mess- und Prüftechnik für den Leichbau
„Qualität im faserverstärkten Leichtbau - CFK, GFK, FVK, Stuttgart, March

Jörg, C.; Letscher, F.; Fleischhauer, M., von Freymann, G.
Temporal Defects in Photonic Topological Insulators
CLEO: QELS-Fundamental Science 2017, San Jose (USA), May

Jörg, C.; Letscher, F.; Fleischhauer, M.; von Freymann, G.
Time-dependent defects in photonic topological insulators
DPG Frühjahrstagung 2017, Dresden, March

Kabel, Matthias
Automatic Derivation of Material Laws for ABAQUS using GeoDict and FeelMath
GeoDict User Meeting, Kaiserslautern, September

Kabel, Matthias
GeoDict for Composites
GeoDict User-Meeting, Tokio (J), October und GeoDict User-Meeting, Nagoya (J), October

Kabel, Matthias
New Developments in GeoDict and FeelMath for Composites
GeoDict User-Meeting (Subcommitee Composite), Tokio (J), October

Kabel, Matthias
Two-Phase Model-Reduction for Two-Scale Simulations of Components
27th International Workshop on Computational Mechanics of Materials (IWCMM-27), Leuven (B), September und 7th GACM Colloquium on Computational Mechanics for Young Scientists from Academia and Industry, Stuttgart, October

Keuper, Janis
Alternative Optimierungsmethoden für Deep Learning
Seminar Uni Freiburg, January

Keuper, Janis
Alternative Optimization Methods for Deep Learning
SEG Data Analytics Workshop, Houston (USA), September

Keuper, Janis
Distributed Training of DNNs
OG-HPC Symposium, Houston (USA), March

Keuper, Janis
Skalierbare Lösungen fürs Deep Learning
IBM Userforum, Frankfurt, April und Volkswagen Entwicklerforum, Wolfsburg, June

Kins, Stefan; Hauth Jan
A refined quantitative model of APP processing
4th BioComp Symposium, Münchweiler an der Alsenz, October

Klein, Matthias
Green by IT – Software für die Energiewende
Sommerreise von Anton Hofreiter (MdB), Kaiserslautern, September

Klein, Matthias
GreenPowerGrid AuDept. ofau eines dezentralen PV-Speicherkraftwerks zur regionalen Grünstromversorgung
Zukunftsinitiative Smart Grids Rheinland-Pfalz, Alzey, May

Klein, Matthias
Kaiserslautern – vom Industrie- zum Wissenschaftsstandort
Karriereforum der Energiewirtschaft, Essen, February

Klein, Matthias
Podiumsdiskussion: Perlen der Energiewende
Heinrich-Böll-Stiftung, Kaiserslautern, November

Klein, Peter
Round Robin study of Molecular Dynamics: Lessons learned from a Translators perspective
EC Expert-Workshop on „Modelling Translators", Brüssel (B), September

Klier, J.; Weber, S.; Molter, D.; Jonuscheit, J.; von Freymann, G.
Berührungslose, robotergestützte Schichtdickenmessung im industriellen Umfeld
DGZFP-Jahrestagung, Koblenz, May

Kolano, M.; Gräf, B.; Molter, D., Ellrich, F.; von Freymann, G.
All-Polarization-Maintaining, Polarization-Multiplexed, Gain-Coupled, Mode-Locked Fiber Laser
Advanced Solid State Lasers Conference (ASSL), Nagoya (J), October

Korn, Ralf
A Monte Carlo Approach for Pricing Cliquet-Options in the Heston Framework
Recent Developments in Numerical Methods with Applications in Statistics and Finance, June

Korn, Ralf
A real-life MC-simulation application: Chance-Risk Classification of Pension Products
Graz Summer School on Application of Quasi Monte Carlo methods, June

Korn, Ralf
Applications of the Central Limit Theorem for Pricing Cliquet-Options
Japanese-German Open Conference on Stochastic Analysis 2017" Kaiserslautern, September

Korn, Ralf
Basic principles, tasks, and ideas of financial mathematics
Graz Summer School on Application of Quasi Monte Carlo methods, June

Korn, Ralf
Chance-Risiko-Klassifikation von Altersvorsorgeprodukten: Konzepte, Erfahrungen, Herausforderungen
BVI Investment Hochschultag, May

Korn, Ralf
Chance-Risk Classification of German Pension Products: Concepts, Experience and Research Challenges
DAV-Jahrestagung, Scientific day, April

Korn, Ralf
Chance-Risk Classification of Pension Products: Scientific Concepts and Challenges
Innovations in Insurance, Risk- and Asset Management, April

Korn, Ralf
Continuous-time portfolio optimization: An approach for meeting (long-term) liabilities of insurance companies
Swiss Risk and Insurance Forum, Rüschlikon (CH), May

Korn, Ralf
Save for the Bad Times or Consume as Long as You Have?
Finance and Energy Seminar, Univ. Duisburg-Essen, November, Center for Mathematical Economics: Math. Finance Seminar, Bielefeld, November und CERMICS Seminar, ENPC, Paris (F), October

Korn, Ralf
Simulation von Altersvorsorgeprodukten - Wie es wirklich funktioniert ...
DWS Altersvorsorge Spezial, September

Korn, Ralf
Simulations of stochastic differential equations and option pricing in continuous time
Graz Summer School on Application of Quasi Monte Carlo methods, June

Korn, Ralf
Statistics with one observation?
Bio-Comp Progress Seminar, Kaiserslautern, June

Kronenberger, Markus
Segmentation of Fibers in Cracked Steel Fiber Reinforced Concrete (SFRC) using Differential Quantities
12th European Congress for Stereology and Image Analysis 2017

Kuehn, Martin; Keuper, Janis
Bottlenecks towards Scalable Deep Learning on HPC Systems
Deep Learning Workshop, Leibniz-Rechenzentrum der Bayerischen Akademie der Wissenschaften, Garching, September

Kuehn, Martin; Keuper, Janis; Pfreundt, Franz-Josef
Using GPI-2 for Distributed Memory Parallelization of the Caffe Toolbox to Speed up Deep Neural Network Training
The Seventh International Conference on Advanced Communications and Computation (INFOCOMP 2017), Venice (I), June

Küfer, Karl-Heinz
Industrial Applications of Multicriteria Decision Support
LONZA, Visp (CH), July und Workshop Recent Advances in Multi-Objective Optimization, University Kaiserslautern, October

Küfer, Karl-Heinz
Mathematik in der Anwendung
20. Forum für Begabtenförderung in Mathematik, Hochschule, Darmstadt, March

Kuhnert, Jörg; Michel, Isabel
Different ways of Fluid Structure Interaction (FSI) in the MESHFREE Finite-Pointset-Method (FPM)
9th International Workshop Meshfree Methods for Partial Differential Equations, Bonn, September

Küsters, Ferdinand; Patil, Deepak; Tesi, Pietro; Trenn, Stephan
Indiscernible topological variations in DAE networks with applications to power grids
20th IFAC World Congress, Toulouse (F), July

Küsters, Ferdinand; Patil, Deepak; Trenn, Stephan
Switch observability for a class of inhomogeneous switched DAEs
56th IEEE Conference on Decision and Control, Melbourne (AUS), December

Küsters, F.; Trenn, S.; Wirsen, A.
Switch observability for homogeneous switched DAEs
20th IFAC World Congress, Toulouse (F), July

Küsters, F.; Trenn, S.; Wirsen, A.
Switch-observer for switched linear systems
56th IEEE Conference on Decision and Control, Melbourne (AUS), December

Leithäuser, Christian
Simulation-based analysis and optimization of spin packs
INDEX 2017, Genf (CH), April

Leithäuser, C.; Hietel, D.
Perfekte Nadeleinstichmuster durch simulationsbasierte Adaption
Hofer Vliesstofftage, Hof, November

Liebscher, A.; Osterroth, S.; Redenbach, C.; Rief, S.; Steiner, K.
Flow and deposition simulation related to chromatographic separation processes
12th European Congress for Stereology and Image Analysis, Kaiserslautern, September

Linn, J.
Ergo-dynamic Moving MAnikin with Cognitive Control – EMMA-CC: Innovative digitale Menschmodellierung für ergonomische Arbeitsplätze
München, February and Stuttgart, February

Linn, J.
Modeling and simulation of slender flexible structures for assembly simulation and digital validation in automotive industry
Grenoble (F), September

Linn, J.
Simulation of flexible cables in car assembly
Berlin, March

Linn, J.
Various aspects of modeling slender flexible structures for assembly simulation and digital validation in automotive industry
Liège (B), August

Linn, J.; Carlson, J.; Obentheuer, M.; Roller, M.; Björkenstam, S.; Madberg, P.
The Fraunhofer research project EMMA-CC: Ergo-dynamic Moving MAnikin with Cognitive Control
Speyer, June

Linn, J.; Hermannsson, T.; Andersson, F.; Schneider, F.
Kinetic aspects of discrete Cosserat rods based on the difference geometry of framed curves
Prag (CZ), June

Linn, J.; Roller, M.; Obentheuer, M.
Simulationsgestützte ergonomische Gestaltung von Montagearbeitsplätzen
Mannheim, April

Matheis, C.; Baccouche, B.; Friederich,F.; Jonuscheit, J.
Terahertz-Messtechnik als komplementäre Prüftechnik bei Verbundwerkstoffen
Seminar des FA Ultraschallprüfung, Berlin, November

Merten, Dirk
ALOMA - An Auto-Parallelization Tool for Seismic Processing
79th EAGE Conference & Exhibition 2017 Workshop Program, Paris (F), June

Michel, Isabel
FPM: Finite Pointset Method vs Familien-Planung Modern
Workshop Women in Computational Engineering, University Kaiserslautern, August

Michel, I.; Kuhnert, J.; Mack, R.
MESHFREE simulations for turbine applications
9th International Workshop Meshfree Methods for Partial Differential Equations, Bonn, September

Michel, I.; Kuhnert, J.; Nick, F.; Metsch, B.
MESHFREE simulation in continuum and fluid mechanics: From geomechanical to medical applications
Workshop Geomathematics Meets Medical Imaging, Speyer, September

Molter, D.; Trierweiler, M.; Ellrich, F.; Jonuscheit, J.; von Freymann, G.
Improvement of Terahertz Time-Domain Spectroscopy Precision by Interferometrically Tracked Delay-Lines
SPIE Photonics West 2017, San Francisco (USA), January

Molter, D.; Trierweiler, M.; Ellrich, F.; Jonuscheit, J.; von Freymann, G.
Precision Enhancement in Terahertz Time-Domain Spectroscopy
32nd URSI GASS, Montreal (CDN), August

Molter, Daniel; Trierweiler, Manuel; Ellrich, Frank; Jonuscheit, Joachim; von Freymann, Georg
Stability and Precision Enhancement of Terahertz Time-Domain Spectroscopy Systems by Interferometry-Aided Delay Lines
German THz Conference 2017, Bochum, March

Neusius, David; Orlik Julia; Shiryaev, Vladimir
Computational truss model for large knitted structures of hyperelastic strings with Coulomb friction and adhesion
International Symposium on Multiscale Computational Analysis of Complex Materials, Kopenhagen (DK), August und 5th International Conference on Computational Contact Mechanics, Lecce (I), July

Niedziela, Dariusz; Rau, Sebastian; Steiner, Konrad
Simulation von Schüttgutströmungen zur Auslegung verfahrenstechnischer Apparate und Prozesse
Fachausschuss »Prozesssimulation« der DKG, Freiburg, March

Obentheuer, M.; Roller, M.; Björkenstam, S.; Berns, K.; Linn, J.
Human like motion generation for ergonomic assessment - a muscle driven Digital Human Model using muscle synergies
Prag (CZ), June

Osterroth, S.; Steiner, K.
Modeling and simulation of chromatographic processes
Tag der Verfahrenstechnik, Kaiserslautern, October

Pfreundt, Franz-Josef
BeeGFS
16th HLRS/hww Workshop on Scalable Global Parallel File Systems - „Memory Class Storage, March

Pfreundt, Franz-Josef
BeeGFS and BeeOND – Progress and Experience
HP-CAST 28, Frankfurt, June and HP-CAST 29, Denver (USA), November

Pfreundt, Franz-Josef
Memory Driven Computing
Invited talk: Third EAGE Workshop on High Performance Computing for Upstream, Athen (GR), October

Pfreundt, Franz-Josef
Thoughts about the future of I/O
Challenges and Opportunities of User-Level File Systems for HPC, Schloss Dagstuhl, Wadern, May

Phutane, U.; Roller, M.; Björkenstam, S.; Linn, J.; Leyendecke, S.
Kinematic validation of a human thumb model
Prag (CZ), June

Pierrat, S.; Liu, C.; Kamps, J.H.; Leenders, C.; Guise, O.; Cheng, X.; Schladitz, K.
Glass fibers pull out length measurement
EMRS, May

Prill, Torben; Iliev, Oleg
Reactive Flow in Random Porous Media
12th European Congress for Stereology and Image Analysis 2017

Prill, Torben; Iliev, Oleg; Printsypar, Galina; Ladawala, Zahra
Simulation of Reactive Transport in Porous Media
Tag der Verfahrenstechnik, Kaiserslautern, October

Rahn, Mirko
Datenmanagement bei High Performance Anwendungen
FZ Jülich, January

Rahn, Mirko
ExaGASPI
ISC 2017, Frankfurt, June

Rahn, Mirko
The old challenge: How to support users?
Dagstuhl Seminar 17541 „New challenges in parallelism", November

Rau, Sebastian
Kontinuumsmechanische Simulation von Granulaten mit der Anwendung pneumatischer Transport
Schüttgut Messe Dortmund, May

Rau, Sebastian
Simulation von Granulaten Simulationsanwendung: Rührgerät
GVT Zukunftsworkshop AK1, November

Reinhard, R.; Kleer, M.; Dreßler, K.
Interactive simulations to prove and validate safety critical onboard systems
Mainz, October

Reinhard, R.; Kleer, M.; Dreßler, K.
The impact of subjective simulator experiences on usability and driving behavior in a state of the art driving simulator
Stuttgart, September

Reinhard, R.; Kleer, M.; Dreßler, K.
The impact of subjective simulator experiences on usability evaluations
Braunschweig, November

Renner, M.; Angermann, Marie-Christin; Muschol, Daniel; von Freymann, Georg
A deterministic aperiodic approach to 3D photonic structures with tailored disorder
Spring School SPP 1839, Karlsruhe, May

Roller, M.; Björkenstam, S.; Linn, J.; Leyendecker, S.
Optimal control of a biomechanical multibody model for the dynamic simulation of working tasks
Prag (CZ), June

Roller, M.; Gallrein, A.; Linn, J.; Betsch, P.
A Tire Model Based on Geometrically Exact Shells for Modal Analysis in Steady State Rolling
Funchal (E), April

Rösch, Ronald
Blick über den Tellerrand der klassischen Oberflächeninspektion
Fraunhofer IOSB Karlsruhe, December

Rösch, Ronald
Innovation durch Algorithmik
10. Fraunhofer Vision Technologietag, Fürth, October

Rösch, Ronald
Modellierung und optische Kontrolle geflochtener Stents
FVTT, Kaiserslautern, September

Schladitz, Katja
3D Bildanalyse für die Strukturoptimierung
Fraunhofer-Leichtbautagung, Halle, November

Schladitz, Katja
Analyse von Faserdicke, Faserorientierung und Wolkigkeit anhand mikroskopischer Bilder mit MAVIfiber2d
FVTT, Kaiserslautern, September

Schmeißer, Andre
Modeling and simulation of contacts and laydown in lightweight nonwoven production processes
Nonwovens Innovation Academy, Chemnitz, November

Schneider, F.; Burger, M.; Arnold, M.; Simeon, B.
Force-displacement co-simulation by the use of kinematic coupling constraints
Darmstadt, September

Schneider, F.; Kleer, M.; Pena Vina, E.; Linn, J.; Weyh, T.; Mühlbach, C.
Introduction to MeSOMICS
Speyer, June

Schneider, F.; Linn, J.; Dreßler, K.
Simulation-based dynamic stress analysis for cables and hoses
Hanau, April

Schneider, F.; Linn, J.; Dreßler, K.; Roller, M.; Sadiku, V.; Stephan, T.
Integration of Cable Dynamics and Fatigue Analysis into IPS Cable Simulation
Speyer, June

Schneider, F.; Linn, J.; Hermansson, T.; Andersson, F.
Cable Dynamics and Fatigue Analysis for Digital Mock-Up in Vehicle Industry
Prag (CZ), June

Schreiner, N. S.; Baccouche, B., Sauer-Greff, W.; Urbansky, R.; Friederich, F.
A Transfer Matrix Modification for Accurate Terahertz FMCW Thickness Measurements
10th UK-Europe-China Workshop on Millimetre Waves and THz Technologies (UCMMT2017), Liverpool (GB), September

Schreiner, N. S.; Baccouche, B., Sauer-Greff, W.; Urbansky, R.; Friederich, F.
An accurate frequency-modulated continuous-wave method for fast terahertz thickness measurements
SPIE Photonics West 2017, San Francisco (USA), January

Schreiner, N. S.; Baccouche, B., Sauer-Greff, W.; Urbansky, R.; Friederich, F.
High-Resolution FMCW Terahertz Thickness Measurements
47th European Microwave Conference (EuMC), Nürnberg, October

Schreiner, N. S.; Friederich, F.
Dickenmessungen mittels Terahertz-Radar
DGZFP Jahrestagung, Koblenz, May

Schröder, Simon
STRING 3: Zukunftsweisende 3D-Visualisierung instationärer Strömungsfelder
delta h Ingenieurgesellschaft Jubiläumstagung 40 Jahre SPRING, Witten, December

Schwientek, Jan
Numerical Methods for General (ized) Semi-infinite Optimization
Seminar on Nonlinear Optimization and Inverse Problems, WIAS, Berlin, April

Schwientek, J.; Nowak, D.; Bortz, M.
Advances in Pareto Frontier Approximation and Navigation
Tag der Verfahrenstechnik, Fraunhofer-Zentrum Kaiserslautern, October

Shah, K.; Reinhard, R.; Christmann, C.; Lachmann, T.
The effects of virtual reality avatar embodiment on real life walking speed: The temporal stability of the Proteus Effect
Dresden, March

Steidel, S.; Burger, M.
Co-simulation in the vehicle development process
Stuttgart, October

Stephani, Henrike
Typischer Aufbau und Beispiele für Algorithmen von Oberflächeninspektionssystemen
Fraunhofer IOSB Karlsruhe, December

Suchde, P.; Kuhnert, J.; Tiwari, S.
Accuracy in Meshfree GFDM Schemes for the Incompressible Navier-Stokes Equations
USNCCM 14, Montreal (CAN), July

Vogel, M.; Aßmann, R., Pirro, P.; Chumak, A.V.; Hillebrands, B., von Freymann, G.
Spin-Wave Mode Conversion via Optically Induced Landscapes of the Saturation Magnetization
DPG Frühjahrstagung 2017, Dresden, March

Vogel, Marc; Aßmann, R.; Pirro, P, Chumak, A.V.; Hillebrands, Burkhard, von Freymann, Georg
Optically Reconfigurable Magnetic Landscapes for the Control of Spin-Wave Propagation
SPIN+X YRC Student-Only Retreat, 2017, Kaiserslautern

TEACHING ACTIVITIES

von Freymann, Georg
Terahertz-Bildgebung: Aus dem Labor in die Anwendung
64. Workshop des Heidelberger Bildverarbeitungsforums: 3D-Bildaufnahme mit durchdringender Strahlung, Fürth, March

Wächtler, Timo; Kuhnert, Jörg
Towards a meshfree Finite Difference Model for Reactive Mixing Problems
USNCCM 14, Montreal (CAN), July

Walczak, M.; Heese, R.; Bortz, M.
Modelle aus Simulationsdaten: Mit Machine Learning Fließbildsimulatoren verbessern
Tag der Verfahrenstechnik, Fraunhofer-Zentrum Kaiserslautern, October

Waller, E. H.; Hering, J.; von Freymann, G.
Optimized nanostructures via direct laser writing: physical and chemical approaches
META 2017, Incheon (ROK), July

Waller, Erik, H.; Hering, Julian; Jörg, Christina ; von Freymann, Georg
Spatial light modulator based 3D direct laser writing
634. WE-Heraeus-Seminar: Merging Micro- and Nano-Optics: 3D Printing of Advanced and Functional Optics, Bad Honnef, January und 15th Fraunhofer IISB Lithography Simulation Workshop 2017, Behringersmühle, September

Weber, Peter K.; Friederich, Fabian
Aktuelle Ergebnisse bildgebender Verfahren an Skulpturen
Workshop Zerstörungsfreie Prüf- und Analysemethoden in der Restaurierung und Oberflächentechnik, Berlin, April

Weber, Stefan; Klier, Jens; Ellrich, Frank; Paustian, S.; Guetller N.; Tiedje, O.; Jonuscheit, Joachim; von Freymann, Georg
Thickness Determination of Wet Coatings Using Self-Calibration Method
Infrared, Millimeter, and Terahertz Waves (IRMMW-THz), 42nd International Conference Cancun (Mex), August

Weisenstein, C.; Kahl, M., Friederich, Fabian, Haring Bolívar, P.
Conception and realization of a semiconductor based 240 GHz full 3D MIMO imaging system,
SPIE Photonics West 2017, San Francisco (USA), January

Zausch, Jochen; Hofmann, Tobias
Advanced Simulation Topics with BEST
BatteryDict/BEST Short Course, Kaiserslautern, September und GeoDict User-Meeting (Subcommitee Electrochemistry), Tokio (J), October

Zausch, Jochen; Hofmann, Tobias
Lithium ion batteries with BatteryDict and BEST
GeoDict User-Meeting, Tokio (J), October und GeoDict User-Meeting, Nagoya (J), October

Andrä, Heiko
Höhere Mathematik in der Anwendung
DHBW Mannheim

Andrä, Heiko
Kontaktmechanik
University Kaiserslautern, Winter term 2017/18

Andrä, Heiko; Kabel, Matthias
Ausgewählte Kapitel aus der Mechanik
University Kaiserslautern

Bitsch, Gerd
Professur für Mechatronik, Robotik und CAE-Simulation
University of Applied Sciences Kaiserslautern, Dept. of Applied Engineering Sciences

Bortz, Michael
Datenauswertung und Versuchsplanung
University Kaiserslautern, Summer term 2017

Bortz, Michael
Modellierung, Simulation und Optimierung in der Verfahrenstechnik
University Kaiserslautern, Winter term 2017/18

Bortz, Michael
Ringvorlesung „Smart Systems Engineering"
University Kaiserslautern, January 2017

Dreßler, Klaus
Durability Load Data Analysis
University Kaiserslautern, Summer term 2017

Friederich, Fabian
Millimeterwellen und Terahertz Technologien
University Kaiserslautern, Dept. of Physics, Winter term 2017/18

Kleer, Michael
Robotik 1
University of Applied Sciences Kaiserslautern, Winter term 2016/2017 und 2017/2018

Korn, Ralf
Professur für Stochastische Steuerung und Finanzmathematik
University Kaiserslautern, Dept. of Mathematics

Küfer, Karl-Heinz
Probability and Algorithms
University Kaiserslautern, Winter term 2017/18

Küfer, Karl-Heinz
Theory of Scheduling Problems
University Kaiserslautern, Summer term 2017

Prätzel-Wolters, Dieter
Professur für Technomathematik
University Kaiserslautern, Dept. of Mathematics

Rau, Sebastian
Mathematik-Tutorien
DHBW Mannheim

Rau, Sebastian
Simulationstechnik
DHBW Mannheim

von Freymann, Georg
Professur für Optische Technologien und Photonik
University Kaiserslautern, Dept. of Physics,

von Freymann, Georg; Friederich, Fabian; Molter, Daniel; Kaiser, Christoph
Hauptseminar II: Terahertz-Physik
University Kaiserslautern, Dept. of physics, Winter term 2017/18

PARTICIPATION IN FAIRS AND CONFERENCES

ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games
San Francisco (USA), February, Lecture

Advanced Solid State Lasers Conference (ASSL)
Nagoya (J), October, Lecture

ADept. ofW Symposium Simulation von Nadelvliesstoffen
Albstadt, May, Lecture

Altair Technology Conference 2017
Frankenthal, June, Exhibitor

Automotive CAE Grand Challenge 2017
Hanau, April, Exhibitor, Lecture

BDVA Annual Summit
Versailles, November

64. Bildverarbeitungsforum »3D-Bildaufnahme mit durchdringender Strahlung«
Fürth, March

65. Bildverarbeitungsforum »Embedded Vision Systeme: Leistungsfähigkeit und Programmierung«
Mannheim, July

66. Bildverarbeitungsforum »Mensch-Maschine-Interaktion mit Vision«
Freiburg, October

Bordnetz Kongress 2017
Landshut, September, Exhibitor, Lecture

2. Bremer Faserverbundtage
Bremen, September

Bunsentagung 2017
Kaiserslautern, May, Poster

Carl-Cranz-Gesllschaft, Seminar: 17VS 10.06 Detektion von Explosivstoffen
Pfinztal, November, Lecture

CeBIT
Hannover, March, Exhibitor

CLEO: QELS-Fundamental Science 2017
San Jose (USA), May, Lecture

Conference on Lasers and Electro-Optics/Europe and the European Quantum Electronics Conference CLEO Europe
München, June

Control 2017
Stuttgart, May, Exhibitor

Cooperation Symposium for TioP Universities and Institutes
Jiangsu (CDN), July, Exhibitor

CVC-Jahrestagung
Mainz, March, Exhibitor, Lecture

CVC-Jahrestagung
Boppard, October, Exhibitor

Daimler EDM-CAE Forum 2017
Stuttgart, July, Exhibitor

DGZFP Jahrestagung
Koblenz, May, Lecture

DGZfP-Seminar Zerstörungsfreie Prüfung an GFK und GFK-Klebeverbindungen
Wittenberge, August, Lecture

Discrete, Nonlinear and Disordered Optics (DINDOS17
Dresden, May, Poster

DPG-Frühjahrstagung 2017
Mainz, March, Lecture, Poster

DSC 2017 Driving Simulation Conference 2017 Europe
Stuttgart, September, Lecture

DVM-Tagung: (R)Evolution des Antriebs – Auswirkung auf die Betriebsfestigkeit der Bauteile in der Wirkungskette
Friedrichshafen, October, Exhibitor, Lecture

DVM-Workshop: Prüfmethodik für Betriebsfestigkeitsversuche in der Fahrzeugindustrie
Ottobrunn, January, Lecture

DVM-Workshop: Zuverlässigkeit und Probabilistik
München, November, Lecture

EAGE 2017
Paris (F), June, Exhibitor, Lecture

ECCOMAS
Prag (CZ), June, Lecture

EGU General Assembly 2017
Wien (A), April, Poster

20. Energietag Rheinland-Pfalz
Bingen, September, Exhibitor

ERA-NET SG+ Knowledge Community Working Group Meeting
Bukarest (RO), June

EUROMECH
Funchal (PT), April, Lecture

12th European Congress for Stereology and Image Analysis
Kaiserslautern, September, Lecture

European Meeting of Statisticians (EMS)
Helsinki (FIN), July

47th European Microwave Conference (EuMC)
Nürnberg, October, Lecture

European Radar Conference EuRAD 2017
Nürnberg, October

E-World Energy & Water 2017
Essen, February, Exhibitor

3. Fachseminar des FA MTHz: Mikrowellen- und Terahertz-Prüftechnik in der Praxis
Würzburg, April, Exhibitor, Lecture

7. Fachtagung Smart Grids und Virtuelle Kraftwerke
Worms, March, Exhibitor

Forschen in Europa
Mannheim, January

15th Fraunhofer IISB Lithography Simulation Workshop 2017
Behringersmühle, September, Lecture

10. Fraunhofer-Vision Technologietag
Fürth, October, Exhibitor, Lecture

Fraunhofer-Symposium Netzwert
München, February, Lecture

7th GACM Colloquium on Computational Mechanics (GACM2017)
Stuttgart, October, Lecture

88th GAMM Annual Meeting
Ilmenau, March, Lecture

GeoDict User-Meeting
Kaiserslautern, September, Lecture

GeoDict User-Meeting
Nagoya (J), October, Lecture

GeoDict User-Meeting
Tokio (J), October, Lecture

German Terahertz Conference
Bochum, March, Lecture

Hannover Messe
Hannover, April, Exhibitor

High-Performance Graphics 2017
Los Angeles (USA), July, Lecture

HiPEAC Spring CSW
Zagreb (HR), April

Hofer Vliesstofftage
Hof, November, Exhibitor, Lecture

HP CAST 28
Frankfurt, June, Lecture

HP CAST 29
Denver (USA), November, Lecture

IAVSD 2017
Queensland (AUS), August, Lecture

IEEE MTT-S International Microwave Symposium
Honolulu (USA), June, Lecture

20th IFAC World Congress 2017
Toulouse (F), July, Poster

INDEX 2017
Genf (CH), April, Exhibitor, Lecture

Industrieworkshop Digitale Technologien für Fasern, Vliesstoffe und technische Textilien
Kaiserslautern, September, Exhibitor, Lecture

42nd International Conference on Infrared, Millimeter, and Terahertz Waves
Cancun (MEX), August, Lecture

International Conference on Porous Media, Intpore
Rotterdam (NL), May, Poster

International Ruhr Energy Finance Conference
Essen, September, Lecture

International Textile Conference
Stuttgart, November/December, Lecture

AWARDS AND PRIZES

International Workshop Adhesion and Friction: Simulation, Experiment, Applications
Berlin, November

16. Internationale VDI-Tagung ‚Reifen-Fahrwerk-Fahrbahn' 2017
Hannover, October, Lecture

Intersolar 2017
München, June, Exhibitor

IPS Cable Simulation User Conference 2017
Speyer, June, Exhibitor, Lecture

IQPC Non Road Mobile Machinery: Functional Safety
Mainz, October, Lecture

ISC High Performance 2017
Frankfurt, June, Exhibitor, Lecture, Poster

IUTAM Symposium
Darmstadt, September, Lecture

Jahresworkshop Fraunhofer-Allianz Verkehr
Dortmund, May

Kaiserslautern Research Matching (karema)
Kaiserslautern, December, Lecture, Workshop

Kooperation Fraunhofer mit HS angewandte Wissenschaft
München, May

8. Landshuter Leichtbau-Colloquium
Landshut, April, Lecture

Laser World of Photonics
München, June

Magnonics 2017
Oxford (UK), August, Poster

MathFinance
Frankfurt, April

META 2017
Incheon (ROK), July, Lecture

MFC 2017
Dornbirn (A), September, Lecture

Mikrowellen- und Terahertz-Prüftechnik in der Praxis
Fürth, April, Lecture

MINT-EC-Schulleitertagung
Kaiserslautern, November, Exhibitor

Modval KA
Karlsruhe, March

NART 2017
Liberec (CZ), September, Lecture

Nonwovens Innovation Academy
Chemnitz, October, Lecture

Optence Jahrestagung
Mainz, March, Exhibitor

OSCAR Retreat
Marienburg, July, Poster

Qualität im faserverstärkten Leichtbau - CFK, GFK, FVK
Stuttgart, March, Lecture

SC 17, Supercomputing 2017
Denver (USA), November, Exhibitor

Schüttgutmesse
Dortmund, May, Lecture

SEG International Exposiotion 2017
Houston (USA), October, Exhibitor

Seminar »Inspektion und Charakterisierung von Oberflächen mit Bildverarbeitung«
Karlsruhe, December, Exhibitor, Lecture

Seminar des FA Ultraschallprüfung
Berlin, November, Lecture

SDept. of 926 Doktorandenretreat 2017
Mannheim, June, Lecture

SIGGRAPH 2017
Los Angeles (USA), August

SPIE Photonics West 2017
San Francisco (USA), January, Lecture

SPIN+X YRC Student-Only Retreat, 2017
Kaiserslautern, March, Lecture

Spring School SPP 1839
Karlsruhe, May, Lecture, Poster

2. Symposium „Digitale Menschmodelle in industriellen Anwendungen"
Stuttgart, February, Lecture

3rd Symposium Driving Simulation 2017
Braunschweig, November, Lecture

Tag der Verfahrenstechnik
Kaiserslautern, October, Lecture

TeaP 2017 - 59th Conference of Experimental Psychologists
Dresden, March, Lecture

Techtextil 2017
Frankfurt/Main, May, Exhibitor

TERATEC Conference
Palaiseau cedex (F), June, Poster

9th THz-Days
Dunkirk (F), June, Lecture

Tire Technology Expo 2017
Hannover, February, Lecture

14th U.S. National Congress on Computational Mechanics
Montreal (CDN), July, Exhibitor, Lecture

10th UK-Europe-China Workshop on Millimetre Waves and THz Technologies (UCMMT 2017)
Liverpool (GB), September, Lecture

32nd URSI GASS
Montreal (CDN), August, Lecture

VI-grade Users Conference
Turin (I), May

634. WE-Heraeus-Seminar: Merging Micro- and Nano-Optics: 3D Printing of Advanced and Functional Optics
Bad Honnef, January, Lecture, Poster

64. Workshop des Heidelberger Bildverarbeitungsforums: 3D-Bildaufnahme mit durchdringender Strahlung
Fürth, March, Lecture

8th Workshop on the Mathematical Foundations of Traffic
Rom (I), March

Workshop: Recent Advances in Multi-Objective Optimization
Kaiserslautern, October, Lecture

Workshop: Zerstörungsfreie Prüf- und Analysemethoden in der Restaurierung und Oberflächentechnik
Berlin, April, Lecture

Dreßler, Klaus; Stephan, Thomas
Article of the year 2017
Journal "Elektronik"
September

Roller, Michael
Best paper award
ECCOMAS Thematic conference on MULTIBODY DYNAMICS
June

OWN EVENTS

bild der wissenschaft: Vorstellung »Volumenoptimierung beim Edelsteinschliff« als Teil einer Leserreise
Kaiserslautern, May

Bildhauersymposium 2017 des Kunstvereins Skulpturen Rheinland-Pfalz e. V.: Vernissage
Kaiserslautern, June

Die Sendung mit der Maus: Mausöffnertag in der Bildverarbeitung
Kaiserslautern, October

ECSIA
Kaiserslautern, September

Gesundheitstage am Fraunhofer-Zentrum
Kaiserslautern, April, August

Industrieworkshop: Digitale Technologien für Fasern, Vliesstoffe und Technische Textilien
Kaiserslautern, September

International Autumn Workshop: Networks and Uncertainty
Kaiserslautern, September

International Workshop: Models and Methods of Robust Optimization
Kaiserslautern, March

IPS Cable Simulation User Conference 2017
Technikmuseum Speyer

Jahrestagung der Felix-Klein-Akademie: Modellierungsworkshop
Kaiserslautern, September

KL-Regelungstechnik: Seminarreihe zu Regelungsthemen, mathematischen Methoden und technische Umsetzung
Kaiserslautern, ganzjährig, einmal im Monat

Kurs: Deep Learning
Kaiserslautern, achtmalig im Jahr

Kurs: Python für wissenschaftliche Anwendungen
Kaiserslautern, February

Mathe-Camp des Felix-Klein-Zentrums für Mathematik
Kaiserslautern, March

Schulung: Data Scientist for Smart Energy Systems
Kaiserslautern, June, November

Semina: Statistische Methoden in der Betriebsfestigkeit
Kaiserslautern, September

Seminar: Lastdaten-Analyse, Bemessung, Simulation
Kaiserslautern, September

Short Course: BatteryDict / BEST
Kaiserslautern, September

Strategisches Netzwerktreffen mit Alumniveranstaltung
Kaiserslautern, December

Tag der Verfahrenstechnik
Kaiserslautern, October

Technologietag: Jurojin – Statistik für Versuche zur Betriebsfestigkeit
Kaiserslautern, September

Technology day on geo-referenced analysis and usage simulation for vehicle development
Kaiserslautern, September

Workshop: PIA-Basismodell
Kaiserslautern, June

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Klassischer Chor der University Kaiserslautern und Frieder Reininghaus
Musikpublizist, Köln
Franz Schuberts „Winterreise" – Melancholie und Biedermeier oder musikalischer Ausdruck des VorMarch?
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Sturm, Volker
Hirnchirurg, Universitysklinikum Würzburg
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February

Zimmerli, Walther Ch.
Philosoph, Humboldt-University zu Berlin
Künstliche Intelligenz oder Cyborg? Digitalisierung als Koevolution von Mensch und Technologie
March

GUESTS

Matz, Sandra
Psychologin, University Cambridge (UK)
Big Data, Psychografisches Profiling und die Zukunft digitalen Marketings. Wie Präsidenten gemacht und Waren beworben werden
May

Eifler, Dietmar
Materialwissenschaftler, University Kaiserslautern
Life unlimited – Gibt es unendlich lange lebende Bauteile?
June

Klassischer Chor der University Kaiserslautern
Sunday Lunch with Henry and Emilio
July

Ströfer, Eckhard
Verfahrenstechniker, University Kaiserslautern
Im Risiko – Warum Innovation so schwierig ist
July

Lengauer, Thomas
Informatiker, Max-Planck-Institut für Informatik, Saarbrücken
Big Data - Macht, Suggestivität, Grenzen und Risiken
September

Springel, Volker
Astrophysiker und Kosmologe, University Heidelberg
Simulierte Universen: Ursprung und Schicksal unserer Milchstraße
October

Trischler, Helmuth
Technikhistoriker, Deutsches Museum, München
Anthropozän – das menschengemachte Zeitalter
November

Moldaschl, Manfred F.
Sozioökonom, Zeppelin University, Friedrichshafen
Wo bestellt man eigentlich geistige Freiheit?
December

Arnold, Martin
(Martin-Luther-University Halle-Wittenberg)
Cosserat rod modeling
March

Bruls, Olivier
(University Lüttich (B))
Cosserat rod modeling
March

Celledoni, Elena
(NTNU Trondheim (N))
Cosserat rod modeling
March

Ciegis, Raimondas
(Vilnius Gediminas Technical University, Vilnius (LT))
Numerical algorithms for problems with fractional powers of elliptic operators
September

den Hertog, Dick
(Tilburg, University (NL))
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Franke, Jürgen
(University Kaiserslautern, AG Statistik)
Machine Learning – Grundlagen und Beispiele
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Fritzen, Felix
(University Stuttgart)
Computer assisted material modeling: ROM and DATA
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Gerstmayr, Johannes
(University Innsbruck (A))
Cosserat rod modeling
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Gerstmayr, Johannes
(University Innsbruck (A))
Recent developments on absolute coordinate formulations
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Griso, Georges
(University Pierre und Marie Curie, Paris (F))
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COLLABORATION IN BOARDS, EDITORSHIP

Hecht, Heiko
(Johannes Gutenberg-University Mainz)
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Henrion, René
(Weierstrass Institut for Applied Analysis and Stochastics Berlin)
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Lakdawala, Zahra
(DHI WASY GmbH, Berlin)
Hydro-Mechanical Coupling in Fractured and Granular Media: Modeling and numerical simulation
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Latz, Arnulf
(Helmholtz Insitut, Ulm)
Batteriesimulation
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Lavrov, Alexander
(Fachhochschule Kaiserslautern-Pirmasens)
Discrete Event Simulation / Plant Simulation
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Lazarov, Raytcho
(Texas AM University (USA))
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Leyendecker, Sigrid
(Friedrich-Alexander-University Erlangen-Nürnberg)
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Meier, Christoph
(MIT, Massachusetts (USA))
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Nagapetyan, Tigran
(Oxford University (GB))
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Owren, Brynjulf
(NTNU Trondheim (N))
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Pflug, Georg
(University of Vienna (A))
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Porta, Giovanni
(Polytecnico di Milano (I))
Characterization of solute transport and mixing in porous media through pore-scale information
September

Printsypar, Galina
(WIAS Institut, Berlin)
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Pudasaini, Shiva
(Rheinische Friedrich-Wilhelms-University Bonn, Steinmann-Institut, Bonn (D))
Unified modelling of complex multi-phase mass flows
September

Rawal, Amit
(Indian Institute of Technology, Delhi (IND))
Analytische Modelle für Vliesstoffe
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Rossi, Davide
(Universita di Bologna, Bologna (I))
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September

Schöbel, Anita
(University Göttingen)
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Schultz, Rüdiger
(University of Duisburg-Essen)
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Siena, Martina
(Polytecnico di Milano (I))
Characterization of channeling phenomena in pore-scale flow fields
March

Zielinski, Pawel
(Wroclaw University of Science and Technology (PL))
Robust discrete optimization under discrete and interval uncertainty
March

Gramsch, Simone
- Fachgremium Fachinformationen der Fraunhofer-Gesellschaft (Member)
- KOMMS – Kompetenzzentrum für mathematische Modellierung in MINT-Projekten in der Schule (Member of Scientific Board)
- Wissenschaftlich-Technischer Rat (WTR) der Fraunhofer-Gesellschaft (Member)

Iliev, Oleg
- CAMWA (Reviewer)
- Computational and Applied Mathematics (Reviewer)
- DFG (Reviewer)
- ETNA (Reviewer)
- Dept. of Mathematics Univ. Heidelberg (Reviewer of PhD thesis, member of examination committee)
- International Society of Porous Media, InterPore (Chair of Event Committee)
- Journal of Porous Media (Editor)
- Mathematical Methods and Analysis (Editor)
- Transport in Porous Media (Reviewer)

Kabel, Matthias
- International Journal for Numerical Methods in Engineering (Reviewer)
- Journal of Applied Geophysics (Reviewer)
- Materials and Design (Reviewer)
- Mathematical Modelling and Analysis (Editor)
- Modelling Simul. Mater. Sci. Eng. – MSMSE (Reviewer)
- Swiss National Science Foundation (Appraiser)

PATENTS

Keuper, Janis
- "Machine Learning in HPC« Workshop, ACM SIG HPC 2017 (Member im ISC High Performance Steering Committee)
- Arbeitsgruppe »Maschinelles Lernen« im Fachbeirat »Data Science« FhG Zertifizierungsstelle Chair für den DL Track bei der ISC High Performance Konferenz Co-Chair (Speaker)

Kirsch, Ralf
- Scientific Committee American Filtration Society (AFS)

Klein, Peter
- BMBF-Programm »ERA.Net RUS Plus - Novel functional nanomaterials based on design and modelling« (Reviewer)
- DFG-Programm »Materials for Additive Manufacturing - Bewertung der Prozessfähigkeit teilkristalliner Thermoplaste im Fused Deposition Modeling mittels eines mikroskaligen Berechnungsansatzes« (Reviewer)
- Heat and Mass Transfer (Reviewer)

Korn, Ralf
- European Actuarial Journal (Co-Editor)
- Quantitative Finance Series, Imperial College Press, World Scientific (Editor)
- Wissenschaftlicher Beirat DISC, University Kaiserslautern (Member)
- DFG-Graduiertenkolleg 1932 "Stochastic Models for Innovations in the Engineering Sciences" (Speaker)
- Deutsche Aktuarvereinigung (Member of the Executive Board)
- Deutscher Verein für Versicherungswissenschaften (Member of the Executive Board)
- Deutsche Gesellschaft für Versicherungs- und Finanzmathematik (Chair of the Executive Board)

Krüger, Jens
- Fachausschuss Fraunhofer Data Scientist Zertifizierung (Member)

Küfer, Karl-Heinz
- BMBF-Programm »Mathematik für Innovationen in Industrie und Dienstleistungen« (Reviewer)

Maasland, Mark
- Fraunhofer-Allianz Vision (Member)
- International Journal of Telemedicine and Clinical Practices (IJTMCP), (Reviewer)

Michel, Isabel
- Computers and Mathematics with Applications (Reviewer)

Prätzel-Wolters, Dieter
- Applied Mathematics Committee (AMC) of the European Mathematical Society (Member)
- BMBF Strategiekommittee für mathematische Modellierung, Simulation und Optimierung (KoMSO) (Member)
- European Research Centres on Mathematics ERCOM (Member)
- Felix-Klein-Zentrum für Mathematik (Chair)
- Forschungszentrum »Center of Mathematical and Computational Modeling CM²« der University Kaiserslautern (Member)
- Fraunhofer-Chalmers Research Centre for Industrial Mathematics FCC (Member of the Advisory Boards)
- Fraunhofer-Leistungszentrum »Simulations- und Software-basierte Innovation« (Speaker of the Council)
- GAMM-Fachausschuss Dynamik und Regelungstheorie (Member)
- Kompetenzzentrum für mathematische Modellierung in MINT-Projekten in der Schule, KOMMS (Member of the Executive Committee)
- Institut für Verbundwerkstoffe GmbH (Member of the Advisory Board)
- Rat für Technologie Rheinland-Pfalz (Member)
- Stiftungsrat »Fraunhofer-Zukunftsstiftung« (Member)

Prill, Torben
- Steering Comittee des InterPore German Chapter (Member)

Rösch, Ronald
- Deutsche Gesellschaft für Materialkunde e.V. (DGM, Member)
- Deutsche Gesellschaft für Zerstörungsfreie Prüfung e.V. (DGZfP, Member)
- DGM-Arbeitskreis Tomographie (Member)
- DGM-Fachausschuss Strahllinien (Member)
- Fraunhofer-Allianz Leichtbau (Member)
- Fraunhofer-Allianz Vision (Member of Coordinating Council)
- Heidelberger Bildverarbeitungsforum (Advisory Board)

Schladitz, Katja
- Composite Structures (Reviewer)
- Image Analysis & Stereology (Reviewer)
- Journal of the Science of Food and Agriculture (Reviewer)
- Leichtbau-Cluster (Member)
- Materials Characterization (Reviewer)
- Methodology and Computing in Applied Probability (Reviewer)

Stephani, Henrike
- International Conference on Pattern Recognition (Reviewer)
- Sensors (ISSN 1424-8220; CODEN: SENSC9, Reviewer)

Fütterling, Valentin
Methods, Computer Program and Apparatus for an Ordered Traversal of a Subset of Nodes of a Tree Structure and for Determining an Occlusion of a Point along a Ray in a Raytracing Scene
US 15/814,441

Trinkaus, Hans; Malschofsky, Ralf
Steuerung eines Produktionsprozesses für extrudierte Profilbauteile
European Patent 1 719 603 B1