



DISSERTATIONEN AN DER TU GRAZ

01. Mai 2015 bis 31. Dezember 2015 (soweit bekannt gegeben)

Fakultät für Architektur

- Oswald, Ferdinand: Reduce A/C Reduzierung der Klimaanlage in Wohnhochhäusern in subtropischen und tropischen Klimaregionen
 Pansinger, Sanela: Flughafenstandort-Stadtentwicklung. Das Dazwischen als Abstellraum?
 Podmirseg, Daniel: up! Contribution of Vertical Farms to increase the overall Energy Efficiency of Cities

Fakultät für Bauingenieurwissenschaften

- Escobar-Castillo, Martha Nerida: Experimentelle und numerische Untersuchungen zum Beulen von dünnen Scheiben aus UHPFRC unter Druckbeanspruchung
 Goldgruber, Markus: Nonlinear Seismic Modelling of Concrete Dams
 Kummer, Markus Klaus: Aggregierte Berücksichtigung von Produktivitätsverlusten bei der Ermittlung von Baukosten und Bauzeiten – Deterministische und probabilistische Betrachtungen
 Marussig, Benjamin: Seamless Integration of Design and Analysis through Boundary Integral Equations
 Meierhofer, Alexander: A new Wheel-Rail Creep Force Model based on Elasto-Plastic Third Body Layers
 Meisel, Andreas: Historische Dachwerke: Beurteilung, realitätsnahe statische Analyse und Instandsetzung
 Muhic, Sergej: Employing existing standard BIM formats as the source of building information in Indoor Positioning

Fakultät für Maschinenbau und Wirtschaftswissenschaften

- Bernsteiner, Stefan: Integration of Advanced Driver Assistance Systems on Full-Vehicle Level Parametrization of an Adaptive Cruise Control System Based on Test Drives
 Hadl, Klaus: Emissionsreduzierung am PKW-Dieselmotor mit Schwerpunkt NOx-Speicherkatalysator
 Halici, Dilek: Damage analysis in a gamma TiAl alloy during hot working
 Hannl, David: Absorptions/Kompressions-Wärmepumpe für Hochtemperaturanwendung mit dem Arbeitsstoffgemisch Ammoniak/Lithiumnitrat
 Kinsky, Thomas: Die Applikation des neuen flexiblen Beinprüfkörpers für die Fußgängerschutztests
 Krenn, Markus: Methoden für die thermodynamische Analyse und Simulation der Dual Fuel Verbrennung in Großmotoren
 Lex, Cornelia: Estimation of the Maximum Coefficient of Friction between Tire and Road Based on Vehicle State Measurements
 Luz, Raphael: Simulationsbasierte Methode zur Zertifizierung der CO2 Emissionen von schweren Nutzfahrzeugen
 Mayr, Johannes: Strategien zur Weiterentwicklung der wissenschaftsbasierten Konstruktion
 Prügler, Adrian: Pre-collision Applications of Human Body Models – An Approach for Incorporating Reactive Occupant Kinematics when Modeling Critical Driving Situations
 Schlacher, Christian: Untersuchung des Kriech- und Schädigungsverhaltens von Schweißverbindungen eines martensitischen borlegierten 9 % Cr-Stahls
 Schnöll, Hans Peter: Integrierte Produktentstehung – ein Vorgehensmodell zur kontextspezifischen Gestaltung des Produktentstehungsprozesses von Bauteilen aus Faserverbundkunststoffen
 Szlosarek, Robert: Experimentelle und numerische Untersuchungen zur mechanischen Festigkeit von Fließformschraubverbindungen zwischen Faser-Kunststoff-Verbunden und Aluminium
 Teibinger, Andreas: Entwicklung einer Validierungsmethode für Berechnungsmodelle hochfester Fahrzeugstrukturen
 Timoshenkov, Alexander: Simulation der Produktion von Nahtlosrohren entlang der Prozesskette
 Zelenka, Jan: Zum Einfluss der Abgasrückführung auf die Verbrennung in Dieselmotoren

Fakultät für Elektrotechnik und Informationstechnik

- Aigner, Maria: Sicherheit in aktiven Niederspannungsnetzen
 Auinger, Bernhard: On the performance Testing of MIMO Enabled Wireless Mobile User Devices
 Coers, Malte: Multi-Decade Broadband GaN Power Amplifiers with High Linearity & Low Noise Performance
 Fuchs, Anna Katharina: The Bionic Electro-Larynx Speech System – Challenges, Investigations, and Solutions
 Hörmaier, Klaus: Excessive Electromagnetic Interferences as Fault-Methodology for Automotive Electromagnetic Compatibility with Respect to Functional Safety
 Kappel, Robert: Development of an Ultra-Low Voltage Digital Cell Library to Reduce the Startup Voltage of Thermoelectric Harvesting Systems in Body Area Networks
 Klomberg, Stephan: Heat Transfer Model for End Winding Cooling of Hydro Generators by Computational Fluid Dynamics Analysis
 Kolbe, Hendrik: Thermal modelling of water-cooled electric machines of some tens of kilowatts
 Konrad, Werner: A high efficiency modular wide input voltage range power supply
 Lang, Klaus: Design of IM and SynRM machine based actuators for elevated temperature environments
 Macher, Georg: Framework for the Integrated Model-Based Development of Dependable Automotive Systems and Software
 Pachler, Walther: Miniaturized RFID Tags Exploring Passive Boosting Technologies
 Podesser, Julia Alexandra: Vergleich der elektrostatischen Aufladung alternativer und konventioneller flüssig/fester Isoliersysteme für Leistungstransformatoren
 Raschke, Wolfgang: A new Approach to Security Certification of Future Smart Card Systems
 Romano, Patrick: Ground Station Engineering and Operations of Nanosatellite Missions
 Tafner, Robert: Observer-Based Parameter Identification Techniques: A Framework for Vehicle Dynamics Assessment

Fakultät für Mathematik, Physik und Geodäsie

- Cuno, Johannes: Combinatorial and Probabilistic Aspects of Discrete Groups
 Hafner, Petra: Development of a Positioning Filter for the Smartphone-based Navigation of Visually Impaired People
 Heftberger, Peter: Structure and elasticity of fluid membrane domains
 Kofler, Johannes: Organic pulsed and potentiometric ion sensors: Reference-electrode-free ion sensing
 Kollmitzer, Benjamin: Elasticity and interactions of liquid-ordered/liquid-disordered domains
 Leitner, Peter: Impact of Energy and Momentum Conservation on Fluid Resonances in the Kinetic Modelling of the Interaction of Resonant Magnetic Perturbations with a Tokamak Plasma
 Maier, Andrea: Orbit determination and gravity field recovery from tracking data to geodetic satellites and the Lunar Reconnaissance Orbiter
 Meingast, Arno: Analytical TEM Investigations of Nanoscale Magnetic Materials
 Nuss, Martin: Low-dimensional correlated fermions out-of-equilibrium: steady-state Green's function cluster methods and space-time evolution
 Piff, Martin: Model-Based Production and Lifetime-Oriented Development by Means of a Compression Ignition Engine
 Rieser, Daniel Georg: GOCE gravity gradients for geoid and Moho determination applying the Least Squares Collocation approach
 Rissner, Roswitha: Integer-valued polynomials
 Scherwitzl, Boris Renato: Studies on the Deposition, Adsorption, Film Growth and Desorption Behavior of Large Organic Molecules on SiO2
 Thaler, Philipp: Buildup and Characterization of an Apparatus for the Synthesis of Metallic Nanoparticles Inside Helium Droplets



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| Topolovec, Stefan: | In-situ studies of the correlations between electrochemical processes and magnetic properties |
| Uusimäki, Toni: | Electron Tomography of Porous Materials and Magnetic Nanoparticles |
| Waldenberger, Benjamin: | Time-inhomogeneous affine processes and affine market models |

Fakultät für Technische Chemie, Verfahrenstechnik und Biotechnologie

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| Ahmad, Mudassar: | Development of tools and methods for genetic engineering of the recombinant protein production host <i>Pichia pastoris</i> |
| Aghazadeh Meshgi, Mohammad: | Synthesis of Indium and Germanium Nanoparticles and Germanium Nanowires & Synthesis of Oligosilanes Containing Hypervalent Silicon Atom |
| Aschenbrenner, Ines: | Stability and change in the lichen microbiome |
| Binder, Judith: | Synthesis, Characterization and Reactivity of novel Arylsilanes – steps towards new materials |
| Botke, Patrick: | Zur Lithium-Selbstdiffusion in kristallinen Festkörpern — Die Detektion von extrem langsamem und schnellen Diffusionsprozessen mittels Kernresonanz-spektroskopie |
| Cernava, Tomislav: | Exploring the substantial contributions and the global interactions of the microbiome in an ancient symbiosis |
| Choto, Patcharanan: | Degenerate Electron Transfer Rates and Activation Parameters of Organic Redox Couples Measured in Debye and Non-Debye Solvents Using Dynamic ESR Spectroscopy |
| Eixelsberger, Thomas: | Mechanistic analysis and synthetic application of nucleotide sugar oxidoreductases |
| Faulhammer, Eva: | Process understanding and optimization of dosing and filling systems for the production of pharmaceutical hard capsules |
| Fimberger, Martin: | Entwicklung polymerbasierter Antireflexionsschichten zum Einsatz in der Photolithographie |
| Gruber, Katharina: | Investigation of the electrochemical behaviour of macroporous carbon/sulfur electrodes and lithium metal electrodes in lithium-sulfur batteries |
| Gursch, Johannes Siegfried: | Development and Implementation of a Controlled Continuous Manufacturing Process Solid-Liquid Separation for Pharmaceutical Production |
| Guttenberger, Nikolaus: | Development of Inhibitors of PhzE- A New Target for Antibiotic Intervention |
| Haas, Michael: | Cyclic Silenes and Germenes |
| Handel, Patricia Monika: | Investigations of Next Generation Cathodes and Thermal Aging Effects of Electrolytes in Lithium-Ion Batteries |
| Hofer, Karin: | Serial Sectioning of Fluorescent Coating Layers as a Tool to Analyze Binder Penetration |
| Jedinger, Nicole: | Development of hot-melt extruded pellets with alcohol-resistant and abuse-deterrent properties |
| Jokic, Tijana: | New pH and CO ₂ sensitive materials based on BF ₂ -chelated azadihydropyrimethenes |
| Kainz, Theresa: | Relationship of Structure and Properties of antiferroelectric Lead Zirconate – Lead Titanate |
| Krainer, Florian: | Production and characterization of recombinant plant peroxidases in <i>Pichia pastoris</i> |
| Lahti, Jussi Antero: | Clupak process and its significance for the properties of extensible kraft paper |
| Lanfranchi, Elisa: | New hydroxynitrile lyase from white rabbit's foot fern: the route from discovery to perspectives for applications |
| Langer, Julia: | Towards the Understanding of Li ⁺ Diffusivity in Ionic Conductors: Jump Rates and Pathways in 2D and 3D Energy Materials |
| Leimgruber, Simon: | Investigation of Elastomer-Metal Adhesion Interfaces and Development of Bifunctional Adhesion Promoter |
| Leitner, Johannes: | Traditionelle und alternative Strategien der Hochkonsistenz-Mahlung für Sackkraftpapiere |
| Leitner, Viktoria: | Die energetische Nutzung von Reststoffbiomasse für eine nachhaltige Entwicklung. Ausarbeitung eines für Österreich optimalen Verwertungskonzeptes für Wirtschaftsdünger und feste agrarische Abfälle |
| Leypold, Mario: | Mechanistic Investigation of the PhzF-Catalyzed Proton Transfer in the Biosynthesis of Phenazines |
| Lienhart, Wolf-Dieter: | Biochemical characterisation of NAD(P)H:quinone oxidoreductase 1 variants involved in cancer development and resistance to chemotherapy |
| Magomedova, Zalina: | Homologous and heterologous expression of oxidoreductases of <i>R. eutropha</i> H16 |
| Nestl, Stephan: | Biogas reforming and the steam iron process for the production of pressurised hydrogen |
| Niemetz, Nora: | SRUNs – Sustainable Resource Utilisation Networks for Regions |
| Reiter, Gerda: | Ecological and techno-economic evaluation of the integration of power-to-gas into the energy system |
| Shienegadesher, Ali: | Improved gas phase CFD simulation of biomass packed bed combustion |
| Sandor, Nora Katalin: | Generating regional energy technology systems – Web-Based RegOpt-CP as a decision support tool for regional stakeholders |
| Schutting, Susanne: | Optical CO ₂ Sensors for the Investigation of the Global Carbon Dioxide Cycle |
| Seifert, Torben: | Investigations on a multi-component heating element based on (Ba,Ca)TiO ₃ barium titanate ceramics |
| Strasser, Simone: | LignoPOLY – Chemical Modification of Wheat Straw Lignin |
| Trimmel, Matthias: | A novel laboratory device for simultaneous measurement of retention, dewatering and flocculation under industry-oriented conditions |
| Trobe, Melanie: | Development of a Modular Approach for the Synthesis of Teraryl-based alpha-Helix Mimetics for the Inhibition of Protein-Protein-Interactions |
| Wahl, Verena: | Identification of critical bulk protein properties with respect to subsequent manufacturing |
| Walewska, Malgorzata: | Base Adducts of Silylated and Germetylated Tetrylenes – Synthesis and Reactivity |
| Wohlmut, Dominik: | Struktur und Dynamik in neuen leistungsfähigen Materialien für zukünftige Energiespeichersysteme |
| Zeppek, Cathrin: | Amine Base Induced Polymerization of Aryl(tin) Hydrides: Mechanistic Insights & Nanomaterial Characterization |
| Zorn, Peter: | Kühlung für Leistungshalter |

Fakultät für Informatik und Biomedizinische Technik

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| Bill, Johannes: | Probabilistic Models of Computation and Self-organization in Recurrent Networks of Spiking Neurons |
| Birkl, Christoph: | Post-mortem Assessment of Iron in Multiple Sclerosis Brain using Magnetic Resonance Imaging |
| Faller, Josef: | Adaptive brain-computer interfaces for users with severe motor impairment |
| Grubert, Jens: | Mobile Augmented Reality for Information Surfaces |
| Hartl, Andreas Daniel: | Mobile Interactive Document Verification |
| Heber, Stefan: | Variational Shape from Unconventional Imaging Devices |
| Hernandez Rizzardini, Rocael: | Flexible educational environments: orchestration of learning activities through semantic interoperability |
| Kreiling, Alex: | Improving Continuous Motor Imagery-Controlled Applications With Hybrid Brain-Computer Interface Design Principles |
| Korak, Thomas: | Low-Cost Side-Channel Analysis and Fault Analysis Setups and Their Application Targeting Secured ASICs |
| Königshofer, Robert: | Satisfiability-Based Methods for Controller Synthesis |
| Pirchheim, Christian: | Exploiting Constraints in Visual Localization and Mapping for Mobile Augmented Reality |
| Schulter, Samuel: | Loss Minimization for Random Forests in Computer Vision |
| Tatzgern, Markus: | Situated Visualization in Augmented Reality |
| Tomescu, Oana Alina: | Integrative Analysis of Omics Data. Enhancement of Existing Methods and Development of a Novel Gene Set Enrichment Approach |
| Wagner, Johanna: | Brain-Computer Interface Technology for Neurorehabilitation |
| Zerferer, Thomas: | Transactional Mobile Government – Leveraging Qualified Electronic Signatures on Mobile Devices |