

List of Publications

Utz von Wagner

2024/01/05

- [1] von Wagner, U.: Stabilität eines Eisenbahnradsatzes bei stochastischer Parametererregung. ZAMM 77(1), 359 – 360, 1997.
- [2] von Wagner, U.: Zur Berechnung der Verteilungsdichte des stochastisch parametererregten van der Pol-Oszillators. ZAMM 78(2), 791 – 792, 1998.
- [3] von Wagner, U.: On the Calculation of the Probability Density of Stochastically Excited Nonlinear Oscillators by Orthogonal Functions. ZAMM 79(2), 323 – 324, 1999.
- [4] von Wagner, U.; Wedig, W. V.: Extended Laguerre-Polynomials for Nonlinear Stochastic Systems. Computational Stochastic Mechanics, ed. P. D. Spanos, A. A. Balkema, Rotterdam, Brookfield, 293-298, 1999.
- [5] von Wagner, U.; Wedig, W. V.: Analysis of Nonlinear Stochastic Systems. Proceedings of the European Conference on Computational Mechanics, München, 1999.
- [6] von Wagner, U.; Wedig W. V.: On the Calculation of Stationary Solutions of Multi-Dimensional Fokker-Planck Equations by Orthogonal Functions. Nonlinear Dynamics 21 (3), 289 – 306, 2000.
- [7] von Wagner, U.; Wedig, W. V.: Oscillatory Stochastic Systems with Nonlinear Dissipations. ZAMM 80(2), 309 – 310, 2000.
- [8] von Wagner, U.; Wedig, W. V.: Nonlinear Stochastic Car Vibrations. ZAMM 81(2), 235 – 236, 2001.
- [9] von Wagner, U.; Hagedorn, P.; Nguyen, M. N.: Nonlinear Behavior of Piezo-Beam-Systems Subjected to Weak Electric Field. Proceedings of ASME DETC 2001, Pittsburgh, VIB 21488.
- [10] Wedig, W. V.; von Wagner, U.: Stochastic Car Vibrations with Strong Nonlinearities. Proceedings of ASME DETC 2001, Pittsburgh, VIB 21605.

- [11] von Wagner, U.; Hagedorn, P.; Trukenmüller, K.: On Pantograph/Catenary Interaction with Respect to a Section Insulator. Proceedings of Fourth International Symposium on Cable Dynamics, Montréal, 121 – 128, 2001.
- [12] von Wagner, U.; Hagedorn, P.: Nonlinearities of Piezoceramics Subjected to Weak Electric Fields: Experiments and Modeling. Proceedings of 3rd Workshop on Structural Health Monitoring, Stanford University, 1183 – 1191, 2001.
- [13] von Wagner, U.; Wauer, J.: On the Optimization of the Vibration in Dental Tools by Compensation Masses. Proceedings of 9th German-Japanese Seminar on Nonlinear Problems in Dynamical Systems –Theory and Applications- . 297 – 304, Shaker Verlag 2002.
- [14] von Wagner, U.: On Double Crater-Like Probability Density Functions of a Duffing Oscillator Subjected to Harmonic and Stochastic Excitation. Nonlinear Dynamics 28, 343 – 355, 2002.
- [15] von Wagner, U.; Hagedorn, P.: Piezo-Beam Systems Subjected to Weak Electric Field: Experiments and Modeling of Nonlinearities. Journal of Sound and Vibration 256 (5), 861 – 872, 2002.
- [16] Chakraborty, G.; Jearsiripongkul, T.; von Wagner, U.; Hagedorn, P.: A New Model for a Floating Caliper Disc-Brake and Active Squeal Control. VDI-Bericht 1736, 93-102, 2002.
- [17] von Wagner, U.: Nonlinear Longitudinal Vibrations of Piezoceramics Excited by Weak Electric Fields. International Journal of Nonlinear Mechanics 38, 565 – 574, 2003.
- [18] von Wagner, U.; Hagedorn, P.: Nonlinear Effects of Piezoceramics Excited by Weak Electric Fields. Nonlinear Dynamics 31, 133 – 149, 2003.
- [19] von Wagner, U.; Jearsiripongkul, T.; Vomstein, T.; Chakraborty, G.; Hagedorn, P.: Brake Squeal: Modeling and Experiments. VDI-Bericht 1749, 173 – 186, 2003.
- [20] von Wagner, U.; Parashar, S. K.: Nonlinear Longitudinal Vibrations of Transversely Polarized Piezoceramics. Proceedings of the Fourth International Symposium of Continuous Systems, Keswick, 51 – 53, 2003.
- [21] von Wagner, U.; Wauer, J.: On Nonlinear Vibrations of Piezoceramic Actuators Excited by Weak Electric Fields. Proceedings of the International Symposium on Dynamics and Control, Hanoi, ed. E. J. Kreuzer and N. V. Khang, 2003.
- [22] von Wagner, U.: Nonlinear Longitudinal Vibrations of Non-Slender Piezoceramic Rods. International Journal of Non-Linear Mechanics 39(4), 673 – 688, 2004.
- [23] von Wagner, U.: On Nonlinear Stochastic Dynamics of Quarter Car Models. International Journal of Non-Linear Mechanics 39(5), 753 – 765, 2004.

- [24] Parashar, S. K.; von Wagner, U.: Nonlinear Longitudinal Vibrations of Transversely Polarized Piezoceramics: Experiments and Modeling. *Nonlinear Dynamics* 37, 51 – 73, 2004.
- [25] Hagedorn, P.; von Wagner, U.: “Smart pads”: A new tool for the suppression of brake squeal? VDI-Bericht 575 (ed. B. Breuer), proceedings of XXIV. μ -Symposium, Bad Neuenahr, 153 – 172, 2004.
- [26] Parashar, S. K.; von Wagner, U.; Hagedorn, P.: A modified Timoshenko Beam Theory for Nonlinear Shear Induced Flexural Vibrations of Piezoceramic Continua. *Nonlinear Dynamics* 37, 181 – 205, 2004.
- [27] von Wagner, U.; Jearsiripongkul, T.; Hochlenert, D.; Hagedorn, P.: Active Control of Brake Squeal via “Smart Pads”. *SAE 2004 Transactions Journal of Passenger Cars: Mechanical Systems*, pp. 1186 – 1192.
- [28] von Wagner, U.; Hochlenert, D.; Hagedorn, P.: Active Control of Disk Brake Squeal. *Proceedings of ICTAM 2004, Warschau, SM25-11261*.
- [29] Parashar, S. K.; Das Gupta, A.; von Wagner, U.; Hagedorn, P.: Nonlinear Shear Vibrations of Piezoceramic Actuators. *International Journal of Nonlinear Mechanics*, 40(4), 429 – 443, 2005.
- [30] Parashar, S. K.; von Wagner, U.: Nonlinear Shear Induced Flexural Vibrations of Piezoceramic Actuators Exhibited at Weak Electric Fields: Experiments and Modeling. *Journal of Sound and Vibration* 285, 989 – 1004, 2005.
- [31] Samal, M. K.; Seshu, P.; Parashar, S. K.; von Wagner, U.; Hagedorn, P.; Dutta, B. K.; Kushwaha, H. S.: A Finite Element Model for Nonlinear Behaviour of Piezoceramics under Weak Electric Fields. *Finite Elements in Analysis and Design* 41 (15), 1464 – 1480, 2005.
- [32] Samal, M. K.; Seshu, P.; Parashar, S. K.; von Wagner, U.; Hagedorn, P.; Dutta, B. K.; Kushwaha, H. S.: Nonlinear behaviour of piezoceramics under weak electric fields, part-I: 3-D Finite element formulation. *International Journal of Solids and Structures* 43 (6), 1422 – 1436, 2006.
- [33] Samal, M. K.; Seshu, P.; Parashar, S. K.; von Wagner, U.; Hagedorn, P.; Dutta, B. K.; Kushwaha, H. S.: Nonlinear behaviour of piezoceramics under weak electric fields, part-II: Numerical results and validation with experiment. *International Journal of Solids and Structures* 43 (6), 1437 – 1458, 2006.
- [34] Kracht, K.; von Wagner, U.; Danziger, B.; Segert, T.: Modal analysis of the Dobson space telescope. *Proceedings of 57th International Astronautical Congress IAC Valencia, 2006*.
- [35] Schlagner, S.; von Wagner, U.: Quietschen von Kfz-Scheibenbremsen. *PAMM* 6(1), 329-330, 2006.

- [36] von Wagner, U.; Hochlenert, D.; Hagedorn, P.: Minimal Models for the Explanation of Disk Brake Squeal. *Journal of Sound and Vibration* 302, 527 – 539, 2007.
- [37] von Wagner, U.; Schlagner S.: Beurteilung des Geräuschverhaltens von Scheibenbremsen mit Hilfe von piezokeramischen Aktoren und Sensoren. *VDI-Berichte* 1982, 151-165, 2007.
- [38] von Wagner, U.; Jüngel, N.; Ritzmann, S.; Bäger, A.: Simulation of pyroshocks. *Proceedings of CEAS 2007*.
- [39] Schlagner, S.; von Wagner, U.: Evaluation of automotive disk brake noise behavior using piezoceramic actuators and sensors. *PAMM Volume 7(1)*, 4050031-4050032, 2007.
- [40] Kracht, K.; von Wagner, U.; Segert, T.: Analysis of the vibration behavior of the DOBSON SPACE TELESCOPE. *PAMM Volume 7(1)*, 4050035-4050036, 2007.
- [41] von Wagner, U.: Stochastically Excited Nonlinear Systems. *Machine Dynamics Problems Vol. 31 No. 2*, 140-154, 2007.
- [42] Uhlmann, E.; Mahr, F.; Shi Y.; von Wagner, U.; Essmann, J.: Interactions between mechanical vibrations and surface roughness during the micro milling process. *Proceedings of 1st International Conference on process machine Interactions* (ed. B. Denkena), 327-334, Hannover. 2008.
- [43] von Wagner, U.; Schlagner S.: On the Origin of Disk Brake Squeal: Modeling and New Measuring Methods. *VDI Berichte Nr. 689*, proceedings of XXVIII. μ -Symposium, Bad Neuenahr, 243 – 260, 2008.
- [44] von Wagner, U.: Nonlinear Dynamic Behaviour of a Railway Wheelset. *Vehicle System Dynamics*, Vol. 47, No. 5, 627 – 640, 2009.
- [45] von Wagner, U.; Schlagner, S.: On the Origin of Disk Brake Squeal. *International Journal of Vehicle Design*, Vol. 51, 223 – 236, 2009.
- [46] Uhlmann, E.; von Wagner, U.; Mahr, F.; Shi, Y: Micro Milling – Investigations on Process – Structure Interaction. *Proceedings of 9th Euspen International Conference* (ISBN 978-0-9553082-6-0), San Sebastian, Vol. II, 82 – 85, 2009.
- [47] Hochlenert, D.; von Wagner, U.: Passive and active techniques to handle brake squeal with piezoelectric actuators. *Proceedings of Braking 2009 York*, 159 – 168, 2009.
- [48] von Wagner, U.; Jüngel, N.; Lacher, L.: Simulation of Pyroshocks. *Proceedings of VII. International Symposium of Vibrations of Continuous Systems*, Zakopane, 2009.
- [49] Schlagner, S.; von Wagner, U.: Fast Characterization of Brake Squeal Behavior. *Proceedings of SAE Brake Colloquium 2009*.

- [50] Hochlenert, D.; von Wagner, U.; Hornig, S.: Bifurcation Behavior and Attractors in Vehicle Dynamics. Machine Dynamics Problems, Vol. 33 (2), 57–73, 2009.
- [51] Lacher, A.; Jünger, N.; von Wagner, U.: Modelling of a pyroshock test device. PAMM, Volume 9(1), 291 – 292, 2010.
- [52] Schlagner, S.; von Wagner, U.: Characterization of disk brake noise behavior via measurement of friction forces. PAMM, Volume 9(1), 59 – 62, 2010.
- [53] Gödecker, H.; von Wagner U.; Heubner, A.: Dynamical behavior of washing machines. PAMM, Volume 9(1), 109 – 110, 2010.
- [54] Shi, Y.; von Wagner, U., Mahr, F.; Uhlmann, E.: Influence of the Machine Structure on Micro Milling Process. PAMM, Volume 9(1), 701 – 702, 2010.
- [55] Shi, Y.; Mahr, F.; von Wagner, U.; Uhlmann, E.: A Spatial Multiple Degree of Freedom Machine Tool Model for Micro Milling Simulation. Proceedings of 2nd International Conference on Process Machine Interactions (CIRP-PMI), MM06, 1-10, Vancouver, 2010.
- [56] Hornig, S.; Hochlenert, D.; von Wagner, U.: Experimental identification of brake pad material properties – a step towards a better prediction of brake squeal. Proceedings of ICNAAM 2010, 1416-1419.
- [57] Gödecker, H.; Schlagner, S.; von Wagner, U.; Hochlenert, D.: Beurteilung von Bremsenquietschen - Modellbildung und experimentelle Untersuchung mittels moderner Analyseverfahren. VDI-Berichte 2118, 147-154, 2010.
- [58] Martens, W.; von Wagner, U.: On the Solution of High Dimensional Fokker Planck Equations using Orthogonal Polynomial Expansion. PAMM Vol. 10(1), 257-258, 2010.
- [59] Nguyen, H. T.; von Wagner, U.: Nonlinear Behavior of Piezoceramic Actuators. PAMM Vol.10(1), 259-260, 2010.
- [60] Kracht, K.; von Wagner, U.: Untersuchung des Schwingungsverhaltens von Ölgemälden. PAMM Vol.10(1), 251-252, 2010.
- [61] von Wagner, U.; Gödecker, H.; Schlagner, S.: Brake Squeal – Modeling and Experimental Investigation Using a Work Criterion. International Journal of Vehicle Structures & Systems, Vol. 3 (1), 21-27, 2011.
- [62] von Wagner, U.; Spelsberg-Korspeter, G.: Minimal Models for Squealing of Railway Block Brakes. Archive of Applied Mechanics 81, 503-511, 2011.
- [63] von Wagner, U.; Hochlenert, D.: Quietschen bei Kfz-Scheibenbremsen – Ursachen und Abhilfemaßnahmen. Proceedings of DAGA Düsseldorf, 185-186, 2011.

- [64] von Wagner, U.; Hochlenert, D.; Martens, W.: Attractors of Nonlinear Wheelset Models. Proceedings of Eurodyn Leuven, 699 – 704, 2011.
- [65] Lacher, A.; Jüngel, N.; Renning, M.; von Wagner, U.: Response of finite continuous structures with discrete masses to impact and its application to pyroshock simulation. Proceedings of ICMEM, 575 – 580, 2011.
- [66] Shi, Y.; Mahr, F.; von Wagner, U.; Uhlmann, E.: Mode-dependent chatter stability in micro milling: structural modeling and experiments. Proceedings of ICMEM, 680 – 685, 2011.
- [67] Hornig, S.; von Wagner, U.: Experimental identification of brake lining material properties subjected to combined static and high frequency loading -A step towards a better prediction of disc brake squeal? Proceedings of 29th SAE brake colloquium, 67-74, 2011.
- [68] Hochlenert, D.; von Wagner, U.: How do nonlinearities influence brake squeal? Technical paper 2011-01-2365, Proceedings of 29th SAE brake colloquium, 179-186, 2011.
- [69] von Wagner, U.; Nguyen, H. T.: Piezoceramics - Nonlinear Behavior at Moderate Strains. Dynamical Systems: Nonlinear Dynamics and Control. Editors J. Awrejcewicz, M. Kazmierczak, P.Olejniki, J. Mrozowski, 51 – 64, 2011.
- [70] Lacher, A.; Jüngel, N.; von Wagner, U.; Bäger, A.; Computational simulation of far-field pyroshocks including experiments and optimization. Proceedings of the 3rd CEAS Air&Space Conference, Venice, 1298 - 1307, 2011.
- [71] Martens, W.; von Wagner, U.: Calculation of probability density functions for nonlinear vibration systems. PAMM Vol. 11(1), 923 – 926, 2011.
- [72] Jüngel, N.; Lacher, A.; von Wagner, U.: Wave propagation in finite structures due to transient loading with application to pyroshock simulation. PAMM Vol. 11(1), 631 – 632, 2011.
- [73] Hornig, S.; Gräbner, N.; von Wagner, U.: Influence of dynamic brake pad properties on automotive disk brake squeal. PAMM Vol. 11(1), 345 – 346, 2011.
- [74] Kracht, K.; von Wagner, U.: Oil paintings and mechanics: How to save art treasures using knowledge from dynamics. Machine Dynamics Research, Vol. 35(4), 49-61, 2011.
- [75] Shi, Y.; Mahr, F.; von Wagner, U.; Uhlmann, E.: Chatter frequencies of micro milling processes: influencing factors and online detection via piezo actuators. International Journal of Machine Tools and Manufacture 56, 10 – 16, 2012.
- [76] Lacher, A.; Jüngel, N.; von Wagner, U.; Bäger, A.: Analytical calculation of in-plane response of plates with concentrated masses to impact and application

- to pyroshock simulation. *Journal of Sound and Vibration* 331, 3358-3370, 2012.
- [77] Hornig, S.; von Wagner, U.: On the identification of Dynamic Friction Material Properties under Brake Squeal Relevant Loading Conditions. *Machine Dynamics Research*, Vol. 36(3), 29-44, 2012.
- [78] Uhlmann, E.; Mahr, F.; Shi, Y.; von Wagner, U.: Process Machine Interactions in Micro Milling. In *Process Machine Interactions* (Editors Denkena, B und Hollmann, F.), Springer-Verlag, 265 – 284, 2012.
- [79] Martens, W.; von Wagner, U.; Mehrmann, V.: Calculation of high-dimensional probability density functions of stochastically excited nonlinear mechanical systems. *Nonlinear Dynamics* 67, 2089 – 2099, 2012.
- [80] Hornig, S.; von Wagner, U.: Improvement of Brake Squeal Simulation Reliability by Measurement and Identification of Friction Material Properties. SAE paper 2012-01-1806. *Proceedings of SAE Brake Colloquium and Exhibition*, 2012.
- [81] Shi, Y.; Mahr, F. von Wagner, U.; Uhlmann, E.: Gyroscopic and mode interaction on micro end mill dynamics and chatter stability. *International Journal of Advanced Manufacturing Technology* 65, 895 – 907, 2013.
- [82] Gödecker, H.; Hochlenert, D.; von Wagner, U.; Kruse, S.: Rapid experimental identification of brake squeal states. *Proceedings of Eurobrake 2013, EB2013-NVH-023*.
- [83] Martens, W.; von Wagner, U.: Calculation of multi-dimensional pdfs for nonlinear mechanical systems with applications. *Proceedings of ICOSAR 2013*.
- [84] Hornig, S.; Gräbner, N.; Hochlenert, D.; Gödecker, H; von Wagner, U.: Steps towards Predictive Simulation and Faster Experimental Investigation of Automotive Brake Systems with Respect to Squeal. *SAE Int. J. Passeng. Cars-Mech. Syst.*, 1147-1153, 2013.
- [85] Martens, W.; von Wagner, U.; Litak, G.: Stationary response of nonlinear magneto-piezoelectric energy harvester systems under stochastic excitation. *European Physical Journal – Special Topics* 222(7), 1665 – 1673, 2013.
- [86] Senatore, A.; Hochlenert, D.; d’Agostino, V.; von Wagner, U.: Driveline Dynamics Simulation and Analysis of the dry Clutch friction-induced Vibrations in the eek Frequency Range. *Proceedings of ASME International Mechanical Engineering Congress IMECE 2013-64597*.
- [87] von Wagner, U.; Hornig, S.; Gräbner, N.; Gödecker, H.: Methods for Rapid Development of Silent Brakes – Actual Research and Future Prospects. *Proceedings of 32nd International μ Symposium, VDI Fortschritt Berichte* 773, 268 – 299, 2013.

- [88] Gräbner, N.; Quraishi, S.; Schröder, C. ; Mehrmann, V.; von Wagner, U.: New Numerical Methods for the Complex Eigenvalue Analysis of Disk Brake Squeal. Proceedings of Eurobrake Conference EB2014-SA-007, 2014.
- [89] Gödecker, H.; von Wagner, U.; Hochlenert, D.: Rapid test methods for the occurrence of brake squeal. In "Selected Dynamical Problems in Mechanical Systems", ed. Chudzikiewicz, A.; Bogacz, R.; Ostermeyer, G.-P.; 97-108, 2014.
- [90] Gräbner, H.; Tiedemann, M.; von Wagner, U.; Hoffmann, N.: Nonlinearities in Friction Brake NVH - Experimental and Numerical Studies. SAE paper 2014-01-2511, 2014.
- [91] Hammerschmidt, A.; von Wagner, U.; Kracht, K.: Active influence on friction contacts in larger objects. PAMM Vol. 14(1), 275 – 276, 2014.
- [92] Renning, R.; Kracht, K.; von Wagner, U.; Köster, P.; Bozkurt, T.: On the influence of boundary conditions on the modal properties of a base frame. PAMM Vol. 14(1), 291 – 292, 2014.
- [93] Houshmand, B.; Lacher, A.; Jüngel, N.; Prasol, L.; von Wagner, U.; Uhlmann, E.: A Novel Excitation Method for Pyroshock Simulation. Journal of Vibration and Control 1077546315573904, 2015.
- [94] Gräbner, N.; Gödecker, H.; von Wagner, U.: On the influence of damping on brake vibrations. Proceedings of International Conference on Engineering Vibration ICoEV Ljubljana, 1088 – 1098, 2015.
- [95] Lentz, L.; von Wagner, U.: Multi-mode model of a piezomagnetoelastic energy harvester under random excitation. PAMM Volume 15 (1), 259-260, 2015
- [96] Hammerschmidt, A.; von Wagner, U.: On the influence of vibrations on macroscopic frictional contacts. PAMM Volume 15 (1), 247 -248, 2015.
- [97] von Wagner, U.; Lentz, L.: On some aspects of the dynamic behavior of the softening Duffing oscillator under harmonic excitation. Archive of Applied Mechanics 86 (8), 1383 – 1390, 2016.
- [98] Gräbner, N.; Mehrmann, V.; Quraishi, S.; Schröder, C.; von Wagner, U.: Numerical methods for parametric model reduction in the simulation of disk brake squeal. Journal of Applied Mathematics and Mechanics ZAMM, DOI: 10.1002/zamm.201500217, 2016.
- [99] Zhao, X.; Gräbner, N.; von Wagner, U.: Experimental and theoretical investigation of creep groan of brakes through minimal models. PAMM Vol 16 (1), 295-296, 2016.
- [100] Hammerschmidt, A.; Sohr, S.; Schmid, D.; von Wagner, U.; Hecht, M.: Quietschen bei Eisenbahn-Klotzbremsen – Ergebnisse schwingungstechnischer Untersuchungen. ZEVrail 141, 78 – 87, 2017.

- [101] Zhao, X.; Gräbner, N.; von Wagner, U.: Creep Groan: Fundamental Experimental and Theoretical Investigations. Proceedings of Eurobrake Conference, EB2017-FBR-002, 2017.
- [102] von Wagner, U.; Lentz, L.: On Artifacts in Nonlinear Dynamics. Vibration, Control and Stability of Dynamical Systems. Proceedings of DSTA 2017 Lodz, 525-536, 2017.
- [103] Lentz, L.; Nguyen, H. T.; von Wagner, U.: Energy Harvesting from Bistable Systems under Random Excitation. Machine Dynamics Research Vol. 41 (1), 5-16, 2017.
- [104] Schmid, D.; Gräbner, N.; von Wagner, U.: Experimental Investigations of Brake Pad Shim Properties. Proc. Appl. Math. Mech. PAMM 17, 41 – 44, 2017.
- [105] Koch, S.; Gräbner, N.; Gödecker, H.; von Wagner, U.: Nonlinear Multiple Body Models for Brake Squeal. Proc. Appl. Math. Mech. PAMM, 17, 33 – 36, 2017.
- [106] Koch, S.; Gräbner, N.; Gemassmer, C.; von Wagner, U.: Optimierter Entwicklungsprozess zur Vermeidung von Rattern in Trailer-Scheibenbremsen. Proceedings of the 5th Commercial Vehicle Technology Symposium (CVT), 431-443, 2018.
- [107] Zhao, X.; Gräbner, N.; von Wagner, U.: Theoretical and experimental investigations of the bifurcation behavior of creep groan of automotive disk brakes. Journal of Theoretical and Applied Mechanics 56 (2), 351 – 364, 2018.
- [108] von Wagner, U.; Lentz, L.: On artifact solutions of semi-analytic methods in non-linear dynamics, Archive of Applied Mechanics, 88(10), 1713-1724, 2018.
- [109] Schmid, D.; Gräbner, N.; von Wagner, U.: Characterization of Brake Shims Using Analytical Constrained Layer Damping. Proc. Appl. Math. Mech. PAMM 18, DOI: 10.1002/pamm.201800285, 2018.
- [110] von Wagner, U.; Lentz, L.: On the detection of artifacts in Harmonic Balance solutions of nonlinear oscillators. Applied Mathematical Modelling 65, 408 – 414, 2019.
- [111] Zhao, X.; Gräbner, N.; von Wagner, U.: Avoiding creep groan: Investigation on active suppression of stick-slip limit cycle vibrations in an automotive disk brake via piezoceramic actuators. Journal of Sound and Vibration 441, 174-186, 2019.
- [112] Schmid, D.; Gräbner, N.; von Wagner, U.: On Brake Pad Shim Characterization: a Homogenization Approach and Finite Element Analysis. In "New Achievements in Continuum Mechanics and Thermodynamics: A Tribute to Wolfgang H. Müller" Advanced Structured Materials, Band 108, Editors: Bilen Emek Abali, Holm Altenbach, Francesco dell'Isola, Victor A. Eremeyev, Andreas Öchsner, 447- 464, Springer, 2019.

- [113] Zhao, X.; Gräbner, N. von Wagner, U.; Hetzler, H.: Analytical analysis of the bifurcation behavior of creep groan. ZAMM, <https://doi.org/10.1002/zamm.201800321>, 2019.
- [114] Noll, M.-U.; Lentz, L.; von Wagner, U.: On the improved modeling of the magnetoelastic force in a vibrational energy harvesting system. Journal of Vibration Engineering & Technologies. <https://doi.org/10.1007/s42417-019-00159-4>, 2019.
- [115] Noll, M.-U.; Lentz, L.; von Wagner, U.: On the discretization of a bistable cantilever beam with application to energy harvesting. Facta Universitatis Series: Mechanical Engineering. Vol 17, No 2, 125-139, 2019.
- [116] Schmid, D.; Sessner, V., Gräbner, N.; von Wagner, U.; Weidenmann, K. A.: Parameter Identification of Brake Pad Shims for Complex Eigenvalue Analysis. <https://doi.org/10.1002/pamm.201900306>, Vol 19 (1), 2019.
- [117] Tuán, N.T.M.; Wulff, P.; Gräbner, N.; von Wagner, U.: On the influence of external stochastic excitation on linear oscillators with subcritical self-excitation applied to brake squeal. Theoretical Approaches in Non-Linear Dynamical Systems. Proceedings of DSTA 2019, Politechnika Łódzka, 2019.
- [118] Lentz, L.; von Wagner, U.: Avoidance of Artifacts in Harmonic Balance Solutions for Nonlinear Dynamical Systems. Journal of Theoretical and Applied Mechanics 58(2), 307–316, 2020.
- [119] Noll, M.-U.; Lentz, L.; von Wagner, U.: Comparison of the dynamics of a Duffing equation model and experimental results for a bistable cantilever beam in magnetoelastic energy harvesting. Technische Mechanik 40 (2), 111–119, 2020.
- [120] Tuán, N.T.M.; Wulff, P.; Gräbner, N.; von Wagner, U.: On the influence of external stochastic excitation on linear oscillators with subcritical self-excitation and gyroscopic influence with application to brake squeal. ZAMM Volume 101 (1), <https://doi.org/10.1002/zamm.202000113> , 2020.
- [121] Sessner, V.; Liebig, W. V.; Jackstadt, A.; Schmid, D.; Ehrig, T.; Holeczek, K.; Gräbner, N.; Kostka, P.; von Wagner, U.; Weidenmann, K. A.; Kärger, L.: Wide Scale Characterization and Modeling of the Vibration and Damping Behavior of CFRP-Elastomer-Metal Laminates—Comparison and Discussion of Different Test Setups. Applied Composite Materials 28, 1715–1746, 2021.
- [122] Koch, S.; Köppen, E.; Gräbner, N.; von Wagner, U.: On the influence of multiple equilibrium positions on brake noise. Facta Universitatis, Series: Mechanical Engineering, <https://doi.org/10.22190/FUME210106020K> , 2021
- [123] Koch, S.; Gödecker, H.; von Wagner, U.: On the interrelation of equilibrium positions and work of friction forces on brake squeal. Archive of Applied Mechanics 92, 771–784, 2022.

- [124] Schmid, D.; Gräbner, N.; von Wagner, U.: Friction-induced noise in drum brakes: finite-element modeling and experiments with special focus on damping. *Archive of Applied Mechanics* 92, 2467–2481, 2022.
- [125] Tuán, N.T.M.; Wulff, P.; Gräbner, N.; von Wagner, U.: On the dynamics of a 2-DOF nonlinear vibratory system with bistable characteristic and circulatory forces. *International Journal of Non-Linear Mechanics*, <https://doi.org/10.1016/j.ijnonlinmec.2022.104342> , 2022.
- [126] Wulff, P.; Lentz, L.; von Wagner, U.: Determination of the polynomial restoring force of a one DoF bistable Duffing oscillator by linear regression. <https://doi.org/10.1007/s00707-022-03462-6> , *Acta Mechanica*, 2023.
- [127] Koch, S.; Gräbner, N.; von Wagner, U.: A minimal model for the influence of equilibrium positions on brake squeal. *GAMM-Mitteilungen* Vol. 46(1) <https://doi.org/10.1002/gamm.202300001> , 2023.
- [128] Schmid, D.; Gräbner, N.; von Wagner, U.; Mehrmann, V.: Suppressing Brake Vibrations by Deliberately Introduced Damping. In *Calm, Smooth and Smart, Novel Approaches for Influencing Vibrations by Means of Deliberately Introduced Dissipation*, editor Peter Eberhard, *Lecture Notes in Applied and Computational Mechanics* 102, Springer-Verlag, 247 – 264, 2023.
- [129] Kamecke, S.; Wulff, P.; Gräbner, N.; von Wagner, U.: Sparse identification of the dynamics of a nonlinear multistable oscillator. *Proceedings in Applied Mathematics and Mechanics*, DOI: 10.1002/pamm.202300108, 2023.
- [130] Gräbner, N.; Schmid, D.; von Wagner, U.: On Drum Brake Squeal - Assessment of Damping Measures by Time Series Data Analysis of Dynamometer Tests and Complex Eigenvalue Analyses. *Machines* 11, 1048. <https://doi.org/10.3390/machines11121048> , 2023.

Corrigenda to [80], [84] and [87] can be found with the link in the paper number.