Publication List of Thomas Flisgen

October 21, 2024

Theses

[1] T. Flisgen. Compact State-Space Models for Complex Superconducting Radio-Frequency Structures based on Model Order Reduction and Concatenation Methods. PhD thesis, Universität Rostock, 2015.

[2] T. Flisgen. Umsetzung eines schnellen Partikel-Partikel-Wechselwirkungsmodells für geladene Teilchen mit Hilfe der nichtäquidistanten Fouriertransformation. Master thesis, Universität Rostock, 2009.

[3] T. Flisgen. Ausrichtungserkennung für Kreuzspulhülsen mit Bilderkennungsstrategien von IMAQ Vision, LabVIEW und dem Eclipse CDT Projekt. Diploma thesis, Hochschule Niederrhein, 2007.

Articles in Refereed Journals

[1] J. M. Bopp, H. Conradi, F. Perona, A. Palaci, J. Wollenberg, T. Flisgen, A. Liero, H. Christopher, N. Keil, W. Knolle, A. Knigge, W. Heinrich, M. Kleinert, and Tim Schröder. Fiber-packaged on-chip magnetic field camera based on diamond NV center infrared absorption optically detected magnetic resonance techniques. *(in preparation)*.

[2] T. Flisgen, S. G. Zadeh, and E. Gjonaj. Influence of vacuum chamber port terminations on beam coupling impedances. *Physical Review Accelerators and Beams*, 26(1), January 2023. doi: 10.1103/PhysRevAccelBeams.26.014601.

[3] C. Tyborski, M. T. Hassan, T. Flisgen, M. Schiemangk, and A. Wicht. Extensive study of magneto-optical and optical properties of $Cd_{1-x}Mn_xTe$ between 675 and 1025 nm. *AIP Advances*, 13(1), January 2023. doi: 10.1063/5.0130535.

[4] H.-E. Porteanu, R. Kaempf, T. Flisgen, and W. Heinrich. Temperature dependence of the complex permittivity in microwave range of some industrial polymers. *AIP Advances*, 12(10), October 2022. doi: 10.1063/5.0101470.

[5] S. G. Zadeh, E. Gjonaj, T. Flisgen, Patrick Krämer, Christine Völlinger, and Ursula van Rienen. Impedance minimization of the LHC Super Proton Synchrotron cavities using the Generalized Coupled S-Parameter Method. *Physical Review Accelerators and Beams*, 25(8), August 2022. doi: 10.1103/PhysRevAccelBeams.25.082001.

[6] T. Hoffmann, A. Wentzel, T. Flisgen, F. Hühn, and W. Heinrich. GaN Digital Outphasing PA. *International Journal of Microwave and Wireless Technologies*, 12(7):567 – 577, 2020. doi: 10.1017/S1759078720000367.

[7] T. Flisgen, E. Gjonaj, H.-W. Glock, and A. Tsakanian. Generalization of Coupled S-Parameter Calculation to Compute Beam Impedances in Particle Accelerators. *Physical Review Accelerators and Beams*, 23(3), March 2020. doi: 10.1103/PhysRevAccelBeams.23.034601.

[8] S. G. Zadeh, T. Flisgen, and U. van Rienen. Eigenmode Computation of Cavities with Perturbed Geometry Using Matrix Perturbation Methods Applied on Generalized Eigenvalue Problems. *Journal of Computational Physics*, 364:347 – 364, 2018. doi: 10.1016/j.jcp.2018.03.012.

[9] T. Flisgen, J. Heller, T. Galek, L. Shi, N. Joshi, N. Baboi, R. M. Jones, and U. van Rienen. Eigenmode Compendium of the Third Harmonic Module of the European XFEL Computed by SSC. *Physical Review Accelerators and Beams*, 20(4), April 2017. doi: 10.1103/PhysRevAccelBeams.20.042002.

[10] C. Schmidt, T. Flisgen, and U. van Rienen. Efficient Computation of the Neural Activation During Deep Brain Stimulation for Dispersive Electrical Properties of Brain Tissue. *IEEE Transactions on Magnetics*, 52(3), November 2015. doi: 10.1109/TMAG.2015.2498098.

[11] J. Heller, T. Flisgen, and U. van Rienen. Computational Benefits using an Advanced Concatenation Scheme based on Reduced Order Models for RF Structures. *Physics Procedia*, 79:38 – 45, December 2015. doi: 10.1016/j.phpro.2015.11.060.

[12] T. Flisgen, J. Heller, and U. van Rienen. Time-Domain Absorbing Boundary Terminations for Waveguide Ports based on State Space Models. *IEEE Transactions on Magnetics*, 50(2), February 2014. doi: 10.1109/TMAG.2013.2283065.

[13] T. Flisgen, H.-W. Glock, P. Zhang, I. R. R. Shinton, N. Baboi, R. M. Jones, and U. van Rienen. Scattering Parameters of the 3.9 GHz Accelerating Module in a Free-Electron Laser Linac: A Rigorous Comparison between Simulations and Measurements. *Physical Review Special Topics - Accelerators and Beams*, 17(2), February 2014. doi: 10.1103/PhysRevSTAB.17.022003.

[14] T. Flisgen, H.-W. Glock, and U. van Rienen. Compact Time-Domain Models of Complex RF Structures based on the Real Eigenmodes of Segments. *IEEE Transactions on Microwave Theory and Techniques*, 61(6), June 2013. doi: 10.1109/TMTT.2013.2260765.

[15] P. Zhang, N. Baboi, R. M. Jones, I. R. R. Shinton, T. Flisgen, and H.-W. Glock. A Study of Beam Position Diagnostics using Beam-Excited Dipole Modes in Third Harmonic Superconducting Accelerating Cavities at a Free-Electron Laser. *Review of Scientific Instruments*, 83(8), 2012. doi: 10.1063/1.4748517.

Conference Proceedings

[1] S. Nozinic, A. Rämer, E. Dischke, T. Flisgen, W. Heinrich, and V. Krozer. Layering it All: Stripline-to-Waveguide Transitions for Corrugated Horns at W-band. In *Proceedings of European Microwave Conference 2024 (EuMW 2024)*, page to appear, Paris, France, 2024.

[2] A. Kanitkar, R. Doerner, T. K. Johansen, W. Heinrich, and T. Flisgen. Influence of On-Wafer Parasitic Effects on Mason's Gain of Down-Scaled InP HBTs. In *Proceedings of European Microwave Conference 2024 (EuMW 2024)*, page to appear, Paris, France, 2024.

[3] X. Shang, N. Ridler, U. Arz, G. N. Phung, I. Roch-Jeune, G. Ducournau, K. Haddadi, T. Flisgen, R. Doerner, D. Allal, J. Stake D. Jayasankar, R. Schmidt, G. Fisher, and F. Mubarak. Interlaboratory Investigation of On-wafer S-parameter Measurements from 110 GHz to 1.1 THz. In *Proceedings of European Microwave Conference 2023 (EuMW 2023)*, pages 624 – 627, Berlin, Germany, 2023.

[4] M. Rausch, T. Flisgen, C. Stölmacker, A. Stranz, A. Thies, H. Yacoub, and W. Heinrich. Technology for the Heterointegration of InP DHBT Chiplets on a SiGe BiCMOS Chip for mm-wave MMICs. In *Proceedings of European Microwave Conference 2022 (EuMW 2022)*, pages 28 – 31, Milan, Italy, 2022.

[5] K. Erkelenz, P. Sriperumbuduri, T. Flisgen, M. Rudolph, T. K. Johansen, W. Heinrich, and A. Wentzel. Output Matching Network Design for Highly Efficient InP-DHBT W-Band PAs Utilizing a Defected Ground Structure. In *Proceedings of the 3th German Microwave Conference 2020 (GeMiC 2020)*, pages 268–271, Cottbus, Germany, 2020.

[6] S. G. Zadeh, T. Flisgen, R. Calaga, and U. van Rienen. HOM damping options for the Z-Pole operating scenario of FCC-ee. *Journal of Physics: Conference Series*, 1350: 012007, November 2019. doi: 10.1088/1742-6596/1350/1/012007.

[7] T. Atkinson, M. Dirsat, A. Matveenko, A. Schälicke, B. Schriefer, Y. Tamashevich, and T. Flisgen. A Longitudinal Kicker Cavity for the BESSY II Booster. In *Proceedings of the 8th International Beam Instrumentation Conference (IBIC 2019)*, pages 150–153, Malmö, Sweden, 2019.

[8] T. Flisgen, J. Heller, and U. van Rienen. Recapitulation of Electromagnetism. In *CERN Yellow Reports: School Proceedings*, volume 5/2018, CERN, Geneva, 2018. doi: 10.23730/CYRSP-2018-005.69.

[9] T. Flisgen, A. Velez, J. Heller, S. G. Zadeh, and U. van Rienen. Computation of Eigenmodes in the BESSY VSR Cavity Chain by means of Concatenation Strategies. In *Proceedings of the 13th International Computational Accelerator Physics Conference 2018 (ICAP 2018)*, pages 253 – 258, Key West, Florida, United States, 2018. doi: 10.18429/JACoW-ICAP2018-TUPAG01.

[10] T. Flisgen, H.-W. Glock, and A. Tsakanian. Estimation of Dielectric Losses in the BESSY VSR Warm Beam Pipe Absorbers. In *Proceedings of the 9th International Particle Accelerator Conference 2018 (IPAC 2018)*, pages 3185 – 3187, Vancouver, Canada, 2018. doi: 10.18429/JACoW-IPAC2018-THPAF085.

[11] T. Atkinson, T. Flisgen, P. Goslawski, J.-G. Hwang, T. Mertens, and M. Ries. VSR Injector Upgrade at BESSY II. In *Proceedings of the 9th International Particle Accelerator Conference 2018 (IPAC 2018)*, pages 4110 – 4112, Vancouver, Canada, 2018. doi: 10.18429/JACoW-IPAC2018-THPMF030.

[12] A. Tsakanian, T. Flisgen, H.-W. Glock, A. Velez, and J. Knobloch. HOM Power Levels in the BESSY VSR Cold String. In *Proceedings of the 9th International Particle Accelerator Conference 2018 (IPAC 2018)*, pages 2808 – 2810, Vancouver, Canada, 2018. doi: 10.18429/JACoW-IPAC2018-WEPML048.

[13] H.-W. Glock, T. Flisgen, F. Glöckner, J. Knobloch, E. Sharples, A. Tsakanian, and A. Velez. Design of the Beamline Elements in the BESSY VSR Cold String. In *Proceedings of the 9th International Particle Accelerator Conference 2018 (IPAC 2018)*, pages 4123 – 4125, Vancouver, Canada, 2018. doi: 10.18429/JACoW-IPAC2018-THPMF033.

[14] T. Flisgen, J. Heller, and U. van Rienen. Combined Domain Decomposition and Model Order Reduction to Solve Complex RF Problems Using FEniCS. In *Proceedings of the 13th International Workshop on Finite Elements for Microwave Engineering 2016 (FEM 2016)*, page 168, Florence, Italy, 2016.

[15] T. Galek, J. Heller, T. Flisgen, K. Brackebusch, and U. van Rienen. Analysis of Higher Order Modes in Large Superconducting Radio Frequency Accelerating Structures. In *Proceedings of the International Conference on Electromagnetics in Advanced Applications 2015 (ICEAA 2015)*, pages 117 – 120, Torino, Italy, 2015. doi: 10.1109/ICEAA.2015.7297111.

[16] T. Galek, J. Heller, K. Brackebusch, T. Flisgen, U. van Rienen, B. Isbarn, B. Riemann, M. Sommer, and T. Weis. Aspects of SRF Cavity Optimization for BESSY-VSR Upgrade. In *Proceedings of the 6th International Particle Accelerator Conference 2015 (IPAC 2015)*, pages 171 – 174, Richmond, VA, USA, 2015.

[17] J. Heller, T. Flisgen, and U. van Rienen. Uncertainty Quantification for Complex RF-structures Using the State-space Concatenation Approach. In *Proceedings of the 36th Symposium on Progress in Electromagnetic Research (PIERS)*, pages 374 – 378, Prague, Czech Republic, July 2015.

[18] C. Schmidt, T. Flisgen, J. Heller, and U. van Rienen. Comparison of Techniques for Uncertainty Quantification of Superconducting Radio Frequency Cavities. In *Proceedings of the International Conference on Electromagnetics in Advanced Applications 2014 (ICEAA 2014)*, pages 117 – 120, Palm Beach, Aruba, 2014. doi: 10.1109/ICEAA.2014.6903838.

[19] T. Flisgen, J. Heller, and U. van Rienen. Computation of Eigenmodes in Long and Complex Accelerating Structures by Means of Concatenation Strategies. In *Proceedings of the 5th International Particle Accelerator Conference 2014 (IPAC 2014)*, pages 947 – 949, Dresden, Germany, 2014.

[20] J. Heller, T. Flisgen, and U. van Rienen. Quantification of Geometric Uncertainties in Single Cell Cavities for BESSY VSR using Polynomial Chaos. In *Proceedings of the 5th International Particle Accelerator Conference 2014 (IPAC 2014)*, pages 415 – 417, Dresden, Germany, 2014.

[21] J. Heller, T. Flisgen, and U. van Rienen. Computation of Wakefields and HOM Port Signals by means of Reduced Order Models. In *Proceedings of the 16th International Conference on RF Superconductivity 2013 (SRF 2013)*, pages 361 – 363, Paris, France, 2013.

[22] T. Flisgen and U. van Rienen. A Modal Absorbing Boundary Condition based on Time-Invariant State Space Models. In *Proceedings of the Workshop on Advances in Electromagnetic Research*, page 25, Riezlern (Kleinwalsertal), Austria, 2013.

[23] T. Galek, T. Flisgen, K. Brackebusch, U. van Rienen, B. Riemann, T. Weis, A. Neumann, and J. Knobloch. BERLinPro 7-Cell SRF Cavity Optimization and HOMs External Quality Factors Estimation. In *Proceedings of the 4th International Particle Accelerator Conference 2013 (IPAC 2013)*, pages 2331 – 2333, Shanghai, China, 2013.

[24] P. Zhang, N. Baboi, R. M. Jones, T. Flisgen, U. van Rienen, and I. R. R. Shinton. Status of Higher Order Mode Beam Position Monitors in 3.9 GHz Superconducting Accelerating Cavities at FLASH. In *Proceedings of the 4th International Particle Accelerator Conference 2013 (IPAC 2013)*, pages 798 – 800, Shanghai, China, 2013.

[25] T. Flisgen and U. van Rienen. Time Domain Models for Lossless Multiport Waveguide Structures in Impedance and Admittance Formulation based on Real Eigenmodes. In *Proceedings of the 8th Conference on Scientific Computing in Electrical Engineering 2012 (SCEE 2012)*, pages 153 – 154, Zurich, Switzerland, 2012.

[26] T. Flisgen, J. Heller, and U. van Rienen. Lumped Equivalent Models of Complex RF Structures. In *Proceedings of the 11th International Computational Accelerator Physics Conference 2012 (ICAP 2012)*, pages 245 – 249, Warnemünde, Germany, 2012.

[27] T. Galek, T. Flisgen, U. van Rienen, B. Riemann, and A. Neumann. Traveling Poles Elimination Scheme and Calculations of External Quality Factors of HOMs in SC Cavities.

In *Proceedings of the 11th International Computational Accelerator Physics Conference 2012 (ICAP 2012)*, pages 152 – 154, Warnemünde, Germany, 2012.

[28] A. Neumann, W. Anders, J. Knobloch, B. Riemann, T. Weis, K. Brackebusch, T. Flisgen, T. Galek, K. Papke, and U. van Rienen. Status of the HOM Calculations for the BERLINPro Main Linac Cavity. In *Proceedings of the 11th International Computational Accelerator Physics Conference 2012 (ICAP 2012)*, pages 278 – 280, Warnemünde, Germany, 2012.

[29] T. Flisgen, H.-W. Glock, and U. van Rienen. A Concatenation Scheme for the Computation of Beam Excited Higher Order Mode Port Signals. In *Proceedings of the 2nd International Particle Accelerator Conference 2011 (IPAC 2011)*, pages 2238 – 2240, San Sebastián, Spain, 2011.

[30] T. Flisgen, H.-W. Glock, and U. van Rienen. A Coupling Formalism for the Computation of Beam Excited HOM Port Signals. In *Proceedings of the Workshop on Advances in Electromagnetic Research*, page 44, Riezlern (Kleinwalsertal), Austria, 2011.

[31] N. Baboi, N. Eddy, T. Flisgen, H.-W. Glock, R. M. Jones, I. R. R. Shinton, and P. Zhang. Higher Order Modes for Beam Diagnostics in Third Harmonic 3.9 GHz Accelerating Modules. In *Proceedings of the 15th International Conference on RF Superconductivity 2011 (SRF 2011)*, pages 239 – 243, Chicago, IL, USA, 2011.

[32] P. Zhang, R. M. Jones, I. R. R. Shinton, N. Baboi, B. Lorbeer, P. Zhang, H. Ecklebe, T. Flisgen, and H.-W. Glock. Beam-based HOM Study in Third Harmonic SC Cavities for Beam Alignment at FLASH. In *Proceedings of the 10th European Workshop on Beam Diagnostics and Instrumentation for Particle Accelerators (DIPAC 2011)*, pages 77 – 79, Hamburg, Germany, 2011.

[33] H.-W. Glock, H. Ecklebe, T. Flisgen, N. Baboi, and P. Zhang. Diode Down-mixing of HOM Coupler Signals for Beam Position Determination in 1.3 GHz and 3.9 GHz Cavities at FLASH. In *Proceedings of the 10th European Workshop on Beam Diagnostics and Instrumentation for Particle Accelerators (DIPAC 2011)*, pages 101 – 103, Hamburg, Germany, 2011.

[34] T. Flisgen, H.-W. Glock, and U. van Rienen. Simulation and Measurement of Scattering Parameters for FLASH's ACC39 Module. In *Proceedings of the Workshop on Advances in Electromagnetic Research, Waren, Germany*, page 34, Waren, Germany, 2010.

[35] P. Zhang, N. Baboi, T. Flisgen, H.-W. Glock, R. M. Jones, B. Lorbeer, U. van Rienen, and I. R. R. Shinton. First Beam Spectra of SC Third Harmonic Cavity at FLASH. In *Proceedings of the 25th Linear Accelerator Conference 2010 (LINAC 2010)*, pages 782 – 782, Tsukuba, Japan, 2010.

[36] I. R. R. Shinton, N. Baboi, N. Eddy, T. Flisgen, H.-W. Glock, R. M. Jones, N. Juntong, T. N. Khabiboulline, U. van Rienen, and P. Zhang. Higher Order Modes in Third Harmonic Cavities at FLASH. In *Proceedings of the 25th Linear Accelerator Conference 2010 (LINAC 2010)*, pages 785 – 787, Tsukuba, Japan, 2010.

[37] I. R. R. Shinton, N. Baboi, N. Eddy, T. Flisgen, H.-W. Glock, R. M. Jones, N. Juntong, T. N. Khabiboulline, U. van Rienen, and P. Zhang. Higher Order Modes in Third Harmonic Cavities at XFEL/FLASH. In *Proceedings of the 1st International Particle Accelerator Conference 2010 (IPAC 2010)*, pages 3007 – 3009, Kyoto, Japan, 2010.

[38] T. Flisgen, G. Pöplau, and U. van Rienen. A Fast Point to Point Interaction Model for Charged Particle Bunches by means of Nonequispaced Fast Fourier Transform (NFFT).

In *Proceedings of the 10th International Computational Accelerator Physics Conference 2009 (ICAP 2009)*, pages 273 – 276, San Francisco, USA, 2009.

Invited Talks

[1] T. Flisgen. *Lecture on Electromagnetic Simulations*. CERN Accelerator School - RF for Accelerators, Berlin, Germany, June 20, 2023.

[2] T. Flisgen. *Lecture on Theory of Electromagnetic Fields*. CERN Accelerator School - RF for Accelerators, Berlin, Germany, June 19, 2023.

[3] T. Flisgen. *Electromagnetic Field Simulations Ranging from Semiconductor to Particle Accelerator Applications*. TEMF/TU Darmstadt, Seminar Physics and Technology of Particle Accelerators, Darmstadt, Germany, June 17, 2019.

[4] T. Flisgen, A. Velez, J. Heller, S. G. Zadeh, and U. van Rienen. *Computation of Eigenmodes in Long and Complex Accelerating Structures by means of Concatenation Strategies*. 13th International Computational Accelerator Physics Conference 2018 (ICAP 2018), Key West, Florida, United States, October 23, 2018.

[5] T. Flisgen and U. van Rienen. *External Quality Factor Computations for Resonant Modes in Long Cavity Chains*. Workshop U.R.S.I. Commission B: Fields and Waves, Gollwitz / Poel, Germany, March 21, 2013.

[6] T. Flisgen. *Measurements of Complex Structures' RF Properties and their Simulation by means of Concatenation Techniques*. Joint DESY and University of Hamburg Accelerator Physics Seminar, Hamburg, Germany, January 29, 2013.

[7] T. Flisgen, J. Heller, and U. van Rienen. *Lumped Equivalent Models of Complex RF Structures*. 11th International Computational Accelerator Physics Conference 2012 (ICAP 2012), Warnemünde, Germany, August 23, 2012.

Talks

[1] T. Flisgen and S. Paul. *Modelling the Scattering Parameters of Passive MMIC Elements*. European Microwave Week 2021, London, United Kingdom, April 2, 2022.

[2] T. Flisgen. *Numerical Modelling of On-Wafer Scattering Parameter Measurements*. European Microwave Week 2020, (Online Conference), January 11, 2021.

[3] T. Flisgen. *Report on Activity 2.1.2*. M9 Status Meeting - Traceability for Electrical Measurements at Millimetre-Wave and Terahertz Frequencies for Communications and Electronics Technologies (TEMMT), Laboratoire national de métrologie et d'essais, Paris, France, January 15, 2020.

[4] T. Flisgen and G. N. Phung. *Report on Activity 2.1.2*. Kick-Off Meeting - Traceability for Electrical Measurements at Millimetre-Wave and Terahertz Frequencies for Communications and Electronics Technologies (TEMMT), National Physical Laboratory, Teddington, United Kingdom, May 28, 2019.

[5] J. Heller, T. Flisgen, A. Velez, and U. van Rienen. *Eigenmode Computations for Chains of Cavities*. ICFA Workshop on Impedances and Beam Instabilities in Particle Accelerators, Benevento, Italy, September 19, 2017.

[6] T. Flisgen. *Estimation of Dielectric Losses in the BESSY VSR Warm Beam Pipe Absorbers*. Helmholz-Zentrum Berlin, Scientific-Technical VSR Meeting, Berlin, Germany, September 8, 2017.

[7] T. Flisgen. *Model Order Reduction for RF Structures*. Workshop Advances in Computational Electromagnetism, Wustrow, Germany, October 10, 2016.

[8] T. Flisgen, J. Heller, and U. van Rienen. *Generation of a Compendium of Resonant Modes in the Chain of Third Harmonic TESLA Cavities for the European XFEL*. ICFA Workshop on High Order Modes in Superconducting Cavities (HOMSC 2016), Warnemünde, Germany, August 22, 2016.

[9] T. Flisgen, J. Heller, and U. van Rienen. *Combined Domain Decomposition and Model Order Reduction to Solve Complex RF Problems Using FEniCS*. 13th International Workshop on Finite Elements for Microwave Engineering 2016 (FEM 2016), University of Florence, Florence, Italy, May 18, 2016.

[10] T. Flisgen, J. Heller, and U. van Rienen. *Progress On SSC Simulations in FLASH and XFEL Cavities*. EuCARD Annual Review Meeting, Cockcroft Institute, Daresbury, United Kingdom, April 5, 2016.

[11] T. Flisgen, J. Heller, and U. van Rienen. *Electromagnetic Field Computations for Chains of Superconducting Cavities using Model-Order Reduction Approaches and Concatenation Techniques*. Workshop on Advances in Electromagnetic Research, Riezlern, Austria, August 20, 2015.

[12] T. Flisgen, J. Heller, and U. van Rienen. *Results of RF Simulations for Chains of Superconducting Cavities*. EuCARD Annual Review Meeting, DESY, Hamburg, Germany, April 8, 2015.

[13] T. Flisgen. *Model Order Reduction for RF Structures*. Workshop Advances in Computational Electromagnetism, Hasenwinkel, Germany, October 13, 2014.

[14] T. Flisgen, J. Heller, and U. van Rienen. *Generation of Compact Models for Complex RF Structures with Model Order Reduction Methods*. Kleinheubacher Tagung 2014, Miltenberg, Germany, September 30, 2014.

[15] T. Flisgen, J. Heller, and U. van Rienen. *Simulation Results for Diagnostics in 3.9 GHz Cavities*. ICFA Workshop on High Order Modes in Superconducting Cavities (HOMSC 2014), Batavia, Illinois, United States, July 15, 2014.

[16] T. Flisgen, J. Heller, and U. van Rienen. *Computation of Eigenmodes in Long and Complex Accelerating Structures by Means of Concatenation Strategies*. 5th International Particle Accelerator Conference 2014 (IPAC 2014), Dresden, Germany, June 17, 2014.

[17] T. Flisgen and U. van Rienen. *Field Simulations for Long Cavity Chains by Means of Concatenation Techniques*. EuCARD Annual Review Meeting, CEA Saclay, Saclay, France, April 16, 2014.

[18] T. Flisgen. *State-Space Models for RF Structures - Past, Present, and Future*. Workshop Advances in Computational Electromagnetism, Hasenwinkel, Germany, October 9, 2013.

[19] T. Flisgen and U. van Rienen. *A Modal Absorbing Boundary Condition based on Time-Invariant State Space Models*. Workshop on Advances in Electromagnetic Research, Riezlern, Austria, August 20, 2013.

[20] T. Flisgen, J. Heller, and U. van Rienen. *Time Domain Absorbing Boundary Terminations for Waveguide Ports based on State Space Models.* Conference on the Computation of Electromagnetic Fields 2013 (COMPUMAG 2013), Budapest, Hungary, July 1, 2013.

[21] T. Flisgen, T. Galek, and U. van Rienen. *State Space Model to Compute External Quality Factors of Accelerating Structures.* International Workshop on Higher-Order-Mode Diagnostics and Suppression in Superconducting Cavities 2012 (HOMSC 2012), Daresbury, United Kingdom, June 26, 2012.

[22] T. Flisgen. *Higher Order Modes and Geometrical Dependencies.* Seminar Advances in Computational Electromagnetics, Universität Rostock, Germany, April 17, 2012.

[23] T. Flisgen, T. Galek, and U. van Rienen. *Higher Order Modes and Geometrical Dependencies.* EuCARD Annual Review Meeting, Helmholtz-Zentrum Berlin, Berlin, Germany, March 30, 2012.

[24] T. Flisgen. *Pole-Zero Based Coupling of Microwave Structures.* Seminar Advances in Computational Electromagnetics, Universität Rostock, Germany, January 6, 2012.

[25] T. Flisgen, H.-W. Glock, and U. van Rienen. *A Coupling Formalism for the Computation of Beam Excited HOM Port Signals.* 3rd RFTech Workshop, Rostock, Germany, December 12, 2011.

[26] T. Flisgen. *A Method to describe Transient Scattering Behaviour of Matched RF-Structures based on its Eigenmodes.* Seminar Advances in Computational Electromagnetics, Universität Rostock, Germany, July 8, 2011.

[27] T. Flisgen. *Coupling Strategies for Beam-Excited HOM Port Signals.* Seminar Advances in Computational Electromagnetics, Universität Rostock, Germany, February 4, 2011.

[28] T. Flisgen, H.-W. Glock, and U. van Rienen. *Simulation and Measurement of Scattering Parameters for FLASH's ACC39 Module.* Workshop on Advances in Electromagnetic Research, Waren, Germany, August 9, 2010.

[29] H.-W. Glock and T. Flisgen. *HOM Geometrical Dependencies - Methods and Results.* EuCARD Annual Review Meeting, Cockcroft Institute, Daresbury Lab, United Kingdom, April 8, 2010.

[30] H.-W. Glock and T. Flisgen. *Strahlerregte Felder in Teilchenbeschleunigern: Fluch oder auch Segen?* Seminar Advances in Computational Electromagnetics, Universität Rostock, Germany, January 28, 2010.

Posters

[1] T. Flisgen, J. Heller, and U. van Rienen. Generation of a Modal Compendium for the Chain of Third Harmonic TESLA Cavities in the European XFEL. In *Proceedings of the Workshop on Advances in Electromagnetic Research*, page 31, Riezlern (Kleinwalsertal), Austria, 2016.

[2] T. Flisgen, J. Heller, and U. van Rienen. Simulation Results for Diagnostics in 3.9 GHz Cavities. In *ICFA Workshop on High Order Modes in Superconducting Cavities (HOMSC 2014)*, Batavia, Illinois, United States, July 15, 2014.

[3] T. Galek, T. Flisgen, K. Brackebusch, U. van Rienen, B. Riemann, T. Weis, A. Neumann, and J. Knobloch. BERLinPro 7-Cell SRF Cavity Optimization and HOMs External Quality Factors Estimation. In *Proceedings of the 4th International Particle Accelerator Conference 2013 (IPAC 2013)*, pages 2331 – 2333, Shanghai, China, 2013.

[4] T. Flisgen and U. van Rienen. Time Domain Models for Lossless Multiport Waveguide Structures in Impedance and Admittance Formulation based on Real Eigenmodes. In *Proceedings of the 8th Conference on Scientific Computing in Electrical Engineering 2012 (SCEE 2012)*, pages 153 – 154, Zurich, Switzerland, 2012.

[5] T. Galek, T. Flisgen, U. van Rienen, B. Riemann, and A. Neumann. Traveling Poles Elimination Scheme and Calculations of External Quality Factors of HOMs in SC Cavities. In *Proceedings of the 11th International Computational Accelerator Physics Conference 2012 (ICAP 2012)*, pages 152 – 154, Warnemünde, Germany, 2012.

[6] A. Neumann, W. Anders, J. Knobloch, B. Riemann, T. Weis, K. Brackebusch, T. Flisgen, T. Galek, K. Papke, and U. van Rienen. Status of the HOM Calculations for the BERLIN-Pro Main Linac Cavity. In *Proceedings of the 11th International Computational Accelerator Physics Conference 2012 (ICAP 2012)*, pages 278 – 280, Warnemünde, Germany, 2012.

[7] T. Flisgen, H.-W. Glock, and U. van Rienen. A Coupling Formalism for the Computation of Beam Excited HOM Port Signals. In *Proceedings of the Workshop on Advances in Electromagnetic Research*, page 44, Riezlern (Kleinwalsertal), Austria, 2011.

[8] H.-W. Glock, H. Ecklebe, T. Flisgen, N. Baboi, and P. Zhang. Diode Down-mixing of HOM Coupler Signals for Beam Position Determination in 1.3 GHz and 3.9 GHz Cavities at FLASH. In *Proceedings of the 10th European Workshop on Beam Diagnostics and Instrumentation for Particle Accelerators (DIPAC 2011)*, pages 101 – 103, Hamburg, Germany, 2011.

[9] T. Flisgen, G. Pöplau, and U. van Rienen. A Fast Point to Point Interaction Model for Charged Particle Bunches by means of Nonequispaced Fast Fourier Transform (NFFT). In *Proceedings of the 10th International Computational Accelerator Physics Conference 2009 (ICAP 2009)*, pages 273 – 276, San Francisco, USA, 2009.