



nu:view References

Last revised: April 9, 2025

Publications regarding the development, validation and application of the AB-CT nu:view breast CT system

- [1] G. Gebhard and M. Wasser. "Advancements and Challenges in Breast Cancer Diagnostics". In: *DI Europe* (2025). URL: https://ab-ct.com/wp-content/uploads/2025/01/DIEurope_202501_BreastCT_Leiden.pdf.
- [2] G. Gebhard and M. Wasser. "Präzision und Komfort für eine bessere Diagnose". In: *Radiologie Magazin* 3 (2024). URL: https://radiologiemagazin.de/epaper/epaper-RadMag_3-2024/index.html#24.
- [3] L. C. Huck, M. Bode, E. Zanderigo, C. Wilpert, V. Raaff, E. Dethlefsen, E. Wenkel, and C. K. Kuhl. "Dedicated Photon-Counting CT for Detection and Classification of Microcalcifications: An Intraindividual Comparison With Digital Breast Tomosynthesis". In: *Investigative Radiology* (June 2024). ISSN: 0020-9996. DOI: [10.1097/RLI.0000000000001097](https://doi.org/10.1097/RLI.0000000000001097).
- [4] M. Wasser, L. Coopmans, D. Kolditz, J. Dijkstra, M. Wetzl, N. Voormolen, and J. van der Hage. "Assessing Accurate Placement of Non-Wire Localization Markers in Non-Palpable Breast Tumors Using Breast CT: A Technical Note." In: *Journal of Radiology and Clinical Imaging* 7.2 (2024), pp. 20–25. DOI: [10.26502/jrci.2809092](https://doi.org/10.26502/jrci.2809092).
- [5] J. Weber, G. Zanetti, E. Nikolova, T. Frauenfelder, A. Boss, J. Wieler, and M. Marcon. "Potential of non-contrast spiral breast CT to exploit lesion density and favor breast cancer detection: A pilot study". In: *European Journal of Radiology* (July 2024), p. 111614. ISSN: 0720-048X. DOI: [10.1016/j.ejrad.2024.111614](https://doi.org/10.1016/j.ejrad.2024.111614).
- [6] M. Wetzl, T. Heilingbrunner, F. Heindl, E. Wenkel, M. Uder, and S. Ohlmeyer. "Detectability of Breast Cancer in Dedicated Breast CT Compared With Mammography Dependent on Breast Density". In: *Investigative Radiology* (July 2024). ISSN: 0020-9996. DOI: [10.1097/RLI.0000000000001105](https://doi.org/10.1097/RLI.0000000000001105).
- [7] E. Formaz, C. Schmidt, N. Berger, A. L. Schönenberger, J. Wieler, T. Frauenfelder, A. Boss, and M. Marcon. "Dedicated breast computed-tomography in women with a personal history of breast cancer: A proof-of-concept study". In: *European Journal of Radiology* 158 (2023), p. 110632. DOI: [10.1016/j.ejrad.2022.110632](https://doi.org/10.1016/j.ejrad.2022.110632).
- [8] D. Kolditz. "Brustuntersuchungen ohne Schmerzen". In: *inpact media Verlag, Leben mit Krebs – Prävention, Therapie, Genesung, Beilage im Magazin STERN, Oktober 2023* 2 (2023). URL: <https://epaper.inpactmedia.com/de/profiles/434ff880f16c-inpact-media/editions/leben-mit-krebs-praevention-therapie-genesung-10-23/pages/page/4>.
- [9] A. Landsmann, C. Ruppert, K. Borkowski, P. Hejduk, A. Ciritsis, J. Wieler, C. Rossi, and A. Boss. "Detection of microcalcifications in photon-counting dedicated breast-CT using a deep convolutional neural network: Proof of principle". In: *Clinical Imaging* 95 (2023), pp. 28–36. DOI: [10.1016/j.clinimag.2022.12.006](https://doi.org/10.1016/j.clinimag.2022.12.006).



- [10] L. Schmidlin. "Die Mamma-Computertomografie nu:view - Eine Innovation in der Mammadiagnostik". Diploma Thesis. BZG Bildungszentrum Gesundheit Basel-Stadt, Bildungsgang MTR, Basel, Switzerland, 2023.
- [11] S. Shim, J. Unkelbach, A. Landsmann, and A. Boss. "Quantitative Study on the Breast Density and the Volume of the Mammary Gland According to the Patient's Age and Breast Quadrant". In: *Diagnostics* 13.21 (Oct. 2023), p. 3343. ISSN: 2075-4418. DOI: [10.3390/diagnostics13213343](https://doi.org/10.3390/diagnostics13213343).
- [12] S. Shim, D. Kolditz, C. Steiding, V. Ruth, A. M. Hoetker, J. Unkelbach, and A. Boss. "Radiation dose estimates based on Monte Carlo simulation for spiral breast computed tomography imaging in a large cohort of patients". In: *Medical Physics* 50.4 (2023), pp. 2417–2428. DOI: [10.1002/mp.16211](https://doi.org/10.1002/mp.16211).
- [13] M. Wetzl, S. Ohlmeyer, and E. Wenkel. "Spiral Breast CT: Going Further with Photon Counting". In: *DI Europe Spring 2023* (2023). URL: https://issuu.com/fido7777/docs/dieurope_spring_2023/24.
- [14] M. Wetzl, E. Wenkel, C. Steiding, V. Ruth, J. Emons, M. N. Wasser, M. Uder, and S. Ohlmeyer. "Feasibility of In Vivo Metal Artifact Reduction in Contrast-Enhanced Dedicated Spiral Breast Computed Tomography". In: *Diagnostics* 19 (2023). DOI: [10.3390/diagnostics13193062](https://doi.org/10.3390/diagnostics13193062).
- [15] N. Berger, M. Marcon, J. Wieler, D. Vorburger, K. J. Dedes, T. Frauenfelder, Z. Varga, and A. Boss. "Contrast Media-Enhanced Breast Computed Tomography With a Photon-Counting Detector". In: *Investigative Radiology* 57.10 (2022), pp. 704–709. DOI: [10.1097/rli.0000000000000863](https://doi.org/10.1097/rli.0000000000000863).
- [16] D. Chester. "Dose measurement and comparison between mammography and breast CT". MA thesis. Institute for Diagnostic and Interventional Radiology, University Hospital Zurich (USZ), Switzerland, 2022.
- [17] G. Gebhard and E. Wenkel. "Mehr Sicherheit". In: *Radiologie Magazin 2* (2022). URL: https://radiologiemagazin.de/epaper-RadMag_2-2022/index.html#60.
- [18] A. Landsmann, J. Wieler, P. Hejduk, A. Ciritsis, K. Borkowski, C. Rossi, and A. Boss. "Applied Machine Learning in Spiral Breast-CT: Can We Train a Deep Convolutional Neural Network for Automatic, Standardized and Observer Independent Classification of Breast Density?" In: *Diagnostics* 12.1 (2022), p. 181. DOI: [10.3390/diagnostics12010181](https://doi.org/10.3390/diagnostics12010181).
- [19] A. Landsmann, C. Ruppert, J. Wieler, P. Hejduk, A. Ciritsis, K. Borkowski, M. C. Wurnig, C. Rossi, and A. Boss. "Radiomics in photon-counting dedicated breast CT: potential of texture analysis for breast density classification". In: *European Radiology Experimental* 6.1 (2022). DOI: [10.1186/s41747-022-00285-x](https://doi.org/10.1186/s41747-022-00285-x).
- [20] C. S. Schmidt, C. Zellweger, J. Wieler, N. Berger, M. Marcon, T. Frauenfelder, and A. Boss. "Clinical assessment of image quality, usability and patient comfort in dedicated spiral breast computed tomography". In: *Clinical Imaging* 90 (2022), pp. 50–58. DOI: [10.1016/j.clinimag.2022.07.001](https://doi.org/10.1016/j.clinimag.2022.07.001).
- [21] S. Shim, D. Cester, L. Ruby, C. Bluethgen, M. Marcon, N. Berger, J. Unkelbach, and A. Boss. "Fully automated breast segmentation on spiral breast computed tomography images". In: *Journal of Applied Clinical Medical Physics* (2022). DOI: [10.1002/acm2.13726](https://doi.org/10.1002/acm2.13726).



- [22] M. Wetzl, M. Dietzel, S. Ohlmeyer, M. Uder, and E. Wenkel. "Spiral breast computed tomography with a photon-counting detector (SBCT): The future of breast imaging?" In: *European Journal of Radiology* 157 (2022), p. 110605. DOI: [10.1016/j.ejrad.2022.110605](https://doi.org/10.1016/j.ejrad.2022.110605).
- [23] A. Boss. "Breast CT in women with breast implants". In: *DI Europe* 37.2 (June 2021), pp. 16–18. URL: <https://www.dieurope.com/site/wp-content/uploads/2021/06/Andreas-Boss-Breast-CT-AB-CT-DIE-June-2021.pdf>.
- [24] M. Wetzl, E. Wenkel, E. Balbach, E. Dethlefsen, A. Hartmann, J. Emons, C. Kuhl, M. W. Beckmann, M. Uder, and S. Ohlmeyer. "Detection of Microcalcifications in Spiral Breast Computed Tomography with Photon-Counting Detector Is Feasible: A Specimen Study". In: *Diagnostics* 11.5 (2021), p. 848. DOI: [10.3390/diagnostics11050848](https://doi.org/10.3390/diagnostics11050848).
- [25] M. Wetzl, E. Wenkel, M. Dietzel, L. Siegler, J. Emons, E. Dethlefsen, F. Heindl, C. Kuhl, M. Uder, and S. Ohlmeyer. "Potential of spiral breast computed tomography to increase patient comfort compared to DM". In: *European Journal of Radiology* 145 (2021), p. 110038. DOI: [10.1016/j.ejrad.2021.110038](https://doi.org/10.1016/j.ejrad.2021.110038).
- [26] J. Wieler, N. Berger, T. Frauenfelder, M. Marcon, and A. Boss. "Breast density in dedicated breast computed tomography: Proposal of a classification system and interreader reliability". In: *Medicine* 100.18 (2021), e25844. DOI: [10.1097/MD.00000000000025844](https://doi.org/10.1097/MD.00000000000025844).
- [27] C. Zellweger, N. Berger, J. Wieler, D. Cioni, E. Neri, A. Boss, T. Frauenfelder, and M. Marcon. "Breast Computed Tomography: Diagnostic Performance of the Maximum Intensity Projection Reformations as a Stand-Alone Method for the Detection and Characterization of Breast Findings." In: *Investigative Radiology* 57.4 (2021), pp. 205–211. DOI: [10.1097/rli.0000000000000829](https://doi.org/10.1097/rli.0000000000000829).
- [28] E. Bärnklaus-Gooriah, V. Ruth, C. Steiding, and D. Kolditz. "Spiral Breast CT: an innovative technology for high resolution real 3D breast imaging without compression". In: *DI Europe* 36.1 (2020), pp. 70–73. URL: https://www.dieurope.com/site/wp-content/uploads/2020/03/DIEuropeFEB_MARCH_2020with-links.pdf.
- [29] M. Germann, S. Shim, F. Angst, N. Saltybaeva, and A. Boss. "Spiral breast computed tomography (CT): signal-to-noise and dose optimization using 3D-printed phantoms". In: *European Radiology* (2020). DOI: [10.1007/s00330-020-07549-3](https://doi.org/10.1007/s00330-020-07549-3).
- [30] D. Pfeufer. "Automated Volume of Interest Reconstruction in Dedicated Spiral Breast-CT". MA thesis. Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany, 2020.
- [31] K. Ridder. "Breast CT - a ground-breaking innovation". In: *DI Europe* 36.4 (Nov. 2020), pp. 18–21. URL: <https://www.dieurope.com/site/wp-content/uploads/2020/12/Breast-CT-Ridder-AB-CT-Nov-2020.pdf>.
- [32] L. Ruby, S. Shim, N. Berger, M. Marcon, T. Frauenfelder, and A. Boss. "Diagnostic value of a spiral breast computed tomography system equipped with photon counting detector technology in patients with implants". In: *Medicine* 99.30 (2020), e20797. DOI: [10.1097/md.00000000000020797](https://doi.org/10.1097/md.00000000000020797).



- [33] V. Ruth. “Spezielle Anwendungen in der dedizierten Computertomographie”. PhD thesis. Institute of Medical Physics, Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany, 2020. URL: <https://opus4.kobv.de/opus4-fau/frontdoor/index/index/docId/14237>.
- [34] V. Ruth, D. Kolditz, C. Steiding, and W. A. Kalender. “Investigation of spectral performance for single-scan contrast-enhanced breast CT using photon-counting technology: A phantom study”. In: *Medical Physics* 47.7 (2020), pp. 2826–2837. DOI: [10.1002/mp.14133](https://doi.org/10.1002/mp.14133).
- [35] S. Schmidt. “Investigation and Implementation of Visualization and Reconstruction Options for Breast-CT”. Bachelor’s Thesis. Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany, 2020.
- [36] S. Shim, N. Saltybaeva, N. Berger, M. Marcon, H. Alkadhi, and A. Boss. “Lesion Detectability and Radiation Dose in Spiral Breast CT With Photon-Counting Detector Technology: A Phantom Study”. In: *Investigative Radiology* 55.8 (2020), pp. 515–523. DOI: [10.1097/rli.0000000000000662](https://doi.org/10.1097/rli.0000000000000662).
- [37] N. Berger, M. Marcon, N. Saltybaeva, W. A. Kalender, H. Alkadhi, T. Frauenfelder, and A. Boss. “Dedicated Breast Computed Tomography With a Photon-Counting Detector: Initial Results of Clinical In Vivo Imaging”. In: *Investigative Radiology* 54.7 (Mar. 2019), pp. 409–418. DOI: [10.1097/RLI.0000000000000552](https://doi.org/10.1097/RLI.0000000000000552).
- [38] N. Berger, M. Marcon, T. Frauenfelder, and A. Boss. “Dedicated Spiral Breast Computed Tomography With a Single Photon-Counting Detector: Initial Results of the First 300 Women”. In: *Investigative Radiology* 55.2 (Oct. 2019), pp. 68–72. DOI: [10.1097/rli.0000000000000609](https://doi.org/10.1097/rli.0000000000000609).
- [39] Z. Jiang. “Implementierung und Evaluation von 3D Rekonstruktions-Algorithmen für Dedizierte Brust CT”. PhD thesis. Institute of Medical Physics, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen, Germany, 2018.
- [40] W. A. Kalender, D. Kolditz, C. Steiding, V. Ruth, F. Lück, A.-C. Rößler, and E. Wenkel. “Technical feasibility proof for high-resolution low-dose photon-counting CT of the breast”. In: *European Radiology* 27.3 (2017), pp. 1081–1086. DOI: [10.1007/s00330-016-4459-3](https://doi.org/10.1007/s00330-016-4459-3).
- [41] A.-C. Rössler, W. A. Kalender, D. Kolditz, C. Steiding, V. Ruth, C. Preuss, S. C. Peter, B. Brehm, M. Hammon, R. Schulz-Wendtland, and E. Wenkel. “Performance of photon-counting breast computed tomography (pcBCT), digital mammography and digital breast tomosynthesis evaluating breast specimens”. In: *Academic Radiology* 24 (2017), pp. 184–190. DOI: [10.1016/j.acra.2016.09.017](https://doi.org/10.1016/j.acra.2016.09.017).
- [42] A. T. Schwab. “Streustrahlungsartefaktreduktion in der Brust-Computertomografie”. PhD thesis. Institute of Medical Physics, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen, Germany, 2017.
- [43] C. Hofmann. “Dosissimulationen für Mammographie und Tomosynthese”. MA thesis. University of Erlangen-Nürnberg, Erlangen, Germany, 2016.
- [44] P. Kalb. “Weiterentwicklung und Evaluierung einer model-basierten iterativen Bildrekonstruktion für die Brust-Computertomographie”. MA thesis. Georg Simon Ohm University of Applied Sciences Nürnberg, Nürnberg, Germany, 2016.



- [45] J. D. Kuttig. "Bildqualitätsuntersuchungen verschiedener Detektortechnologien für die dediziert Brust-CT". PhD thesis. Institute of Medical Physics, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen, Germany, 2015.
- [46] J. D. Kuttig, C. Steiding, D. Kolditz, M. Hupfer, M. Karolczak, and W. A. Kalender. "Comparative investigation of the detective quantum efficiency of direct and indirect conversion detector technologies in dedicated breast CT". In: *Physica Medica* 31.4 (2015), pp. 406–413. DOI: [10.1016/j.ejmp.2015.03.007](https://doi.org/10.1016/j.ejmp.2015.03.007).
- [47] A. C. Rössler, E. Wenkel, F. Althoff, and W. Kalender. "The influence of patient positioning in breast CT on breast tissue coverage and patient comfort". In: *Senologie - Zeitschrift für Mammadiagnostik und -therapie* 12 (2015), pp. 96–103. DOI: [10.1055/s-0035-1553177](https://doi.org/10.1055/s-0035-1553177).
- [48] A. C. Rössler, E. Wenkel, F. Althoff, and W. A. Kalender. "The Influence of Patient Positioning in Breast CT on Breast Tissue Coverage and Patient Comfort." In: *RöFo* 187.2 (2015), pp. 115–122. DOI: [10.1055/s-0034-1385208](https://doi.org/10.1055/s-0034-1385208).
- [49] A.-C. Rössler. "Patientenlagerung bei dedizierter Brust-CT". PhD thesis. Institute of Medical Physics, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen, Germany, 2015. URL: <https://opus4.kobv.de/opus4-fau/frontdoor/index/index/docId/6189>.
- [50] Q. Zhang. "Characterization and Evaluation of a Photon Counting X-ray Imaging Detector for Dedicated Breast CT". 2015.
- [51] F. Lück. "Einfluss von Formfiltern auf Dosis und Bildqualität für Brust-CT". PhD thesis. Institute of Medical Physics, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen, Germany, 2014. URL: <http://d-nb.info/1066212651>.
- [52] F. Lück, D. Kolditz, M. Hupfer, C. Steiding, and W. A. Kalender. "Experimental validation of a single shaped filter approach for CT using variable source-to-filter distance for examination of arbitrary object diameters". In: *Physics in Medicine and Biology* 59.19 (2014), p. 5691. DOI: [10.1088/0031-9155/59/19/5691](https://doi.org/10.1088/0031-9155/59/19/5691).
- [53] H. Schilling. "Datenübertragungskonzepte für ein Brust-CT". PhD thesis. Institute of Medical Physics, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen, Germany, 2014.
- [54] C. Steiding, D. Kolditz, and W. A. Kalender. "A quality assurance framework for the fully automated and objective evaluation of image quality in cone-beam computed tomography". In: *Medical Physics* 41.3 (2014), p. 031901. DOI: [10.1118/1.4863507](https://doi.org/10.1118/1.4863507).
- [55] F. Althoff. "Systemdesign und Patientenlagerung bei der dedizierten Brust-Computertomografie". PhD thesis. Institute of Medical Physics, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen, Germany, 2013.
- [56] R. Hendrych. "Interaktive Filterung großer Volumendaten in der dedizierten Brust-CT". PhD thesis. Institute of Medical Physics, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen, Germany, 2013.
- [57] F. Lück, D. Kolditz, M. Hupfer, and W. A. Kalender. "Effect of shaped filter design on dose and image quality in breast CT". In: *Phys. Med. Biol.* 58.12 (2013), pp. 4205–4223. DOI: [10.1088/0031-9155/58/12/4205](https://doi.org/10.1088/0031-9155/58/12/4205).

- [58] A. P. Peetz. "Steuerungskonzept für einen dedizierten Brust-CT-Scanner". PhD thesis. Institute of Medical Physics, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen, Germany, 2013.
- [59] M. Beister, D. Kolditz, and W. A. Kalender. "Iterative reconstruction methods in X-ray CT". In: *Physica Medica - European Journal of Medical Physics* 28 (2012), pp. 94–108. DOI: [10.1016/j.ejmp.2012.01.003](https://doi.org/10.1016/j.ejmp.2012.01.003).
- [60] W. Chen, D. Kolditz, M. Beister, R. Bohle, and W. A. Kalender. "Fast on-site Monte Carlo tool for dose calculations in CT applications". In: *Med. Phys.* 36.6 (2012), pp. 2985–2996. DOI: [10.1118/1.4711748](https://doi.org/10.1118/1.4711748).
- [61] W. A. Kalender, M. Beister, J. M. Boone, D. Kolditz, S. V. Vollmar, and M. Weigel. "High-resolution spiral CT of the breast at very low dose: Concept and feasibility considerations". In: *Eur. Radiol.* 22 (2012), pp. 1–8. DOI: [10.1007/s00330-011-2169-4](https://doi.org/10.1007/s00330-011-2169-4).
- [62] T. Nowak, M. Hupfer, F. Althoff, R. Brauweiler, F. Eisa, C. Steiding, and W. A. Kalender. "Time-delayed summation as a means of improving resolution on fast rotating computed tomography systems". In: *Med Phys* 39.4 (2012), pp. 2249–2260. DOI: [10.1118/1.3697533](https://doi.org/10.1118/1.3697533).
- [63] M. Beister. "GPU-basierte Iterative Bildrekonstruktion und Artefakt-Korrekturen in der Computertomographie". PhD thesis. Institute of Medical Physics, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen, Germany, 2011.
- [64] W. A. Kalender. *Computed Tomography: Fundamentals, System Technology, Image Quality, Applications, 3rd Edition*. Publicis Publishing, Erlangen, Germany, 2011.
- [65] D. Kobzan. "Entwicklung einer dynamischen Blende für Region of Interest Bildgebung in der Brust-Computertomografie". MA thesis. Georg Simon Ohm University of Applied Sciences Nürnberg, Nürnberg, Germany, 2011.
- [66] M. Weigel. "Untersuchungen zu dedizierter Brust-Computertomografie". PhD thesis. Institute of Medical Physics, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen, Germany, 2011.
- [67] M. Weigel, S. V. Vollmar, and W. A. Kalender. "Spectral optimization for dedicated breast CT". In: *Medical Physics* 38.1 (2011), pp. 114–124. DOI: [10.1118/1.3523599](https://doi.org/10.1118/1.3523599). URL: <https://www.ncbi.nlm.nih.gov/pubmed/21361181>.

Scientific presentations regarding the development, validation and application of the AB-CT nu:view breast CT system

- [68] D. Heinemann, V. Ruth, C. Steiding, and D. Kolditz. "Brust-CT - Technischer Hintergrund, klinische Arbeitsweise, normative Einordnung, Abnahmeprüfung, Konstanzprüfung und Sachverständigenprüfung". In: *Erfahrungsaustausch der Röntgen-Sachverständigen der Länder Hessen, Saarland, Baden-Württemberg und Rheinland-Pfalz, March 19 - 20, 2025, Wiesbaden, Germany*. 2025.



- [69] D. Kolditz. "Speaking Session at AB-CT booth at ECR 2025: Clinical and Technological Advances in Breast CT". In: *European Congress of Radiology (ECR) 2025, February 26 - March 2, 2025, Vienna, Austria*. 2025. URL: https://www.linkedin.com/posts/ab-ct-advanced-breast-ct_ct-diagnostics-breastimaging-activity-7298256375392944130-CfDQ.
- [70] S. Ohlmeyer. "Brust-CT". In: *75. Jahrestagung der Bayerischen Röntgengesellschaft e.V. (BRG), October 10 - 12, 2024, Nuremberg, Germany*. 2024. URL: <https://programme.conventus.de/brg-2024/program/sessions/6c924bc8-1661-4a14-b229-f2c19bbfb9b4>.
- [71] K. Ridder. "Mamma-CT". In: *MTR-Neujahrssymposium, Deutsche Gesellschaft für Medizinische Technolog:innen für Radiologie, January 20, 2024, online*. 2024. URL: <https://www.drg.de/de-DE/178/veranstaltungskalender/show/3805/MTR-Neujahrssymposium/>.
- [72] V. Ruth, D. Heinemann, C. Steiding, and D. Kolditz. "Automated calibration and pre-processing framework for a large area photon-counting breast CT system". In: *CERN SpecXray 7 - 7th Workshop on Medical Applications of Spectroscopic X-ray Detectors, April 15 - 18, 2024, Geneva, Switzerland*. 2024.
- [73] R. Schulz-Wendtland. "MRT versus CT - Wo liegt die Zukunft in der Mammadiagnostik?". In: *Vereinigung Südwestdeutscher Radiologen und Nuklearmediziner e.V., Frühjahreskurse 2024, February 2 - 3, 2024, Baden-Baden, Germany*. 2024. URL: https://www.vsrn.de/de/Fruehjahreskurse_2024/Allgemeine_Informationen/.
- [74] A. Boss. "Brust-CT – Kompressionsfreie 3D Mammographie". In: *GZO Academy, Kurs Minimalinvasive Brustbiopsie(MIBB) 2023, November 11, 2023, Wetzikon, Switzerland*. 2023. URL: https://www.linkedin.com/posts/andreas-boss-63399a52_programm-activity-7097207237948887040-SzVF.
- [75] A. Boss. "Dedicated breast CT". In: *EUSOBI Annual Scientific Meeting 2023, September 28 -30, 2023, Valencia, Spain*. 2023. URL: https://www.eusobi.org/content-eusobi/uploads/EUSOBI-2023_Scientific-Programme.pdf.
- [76] D. Cester, S. Shim, and A. Boss. "Breast-CT and conventional mammography: dose comparison with phantoms". In: *Swiss Congress of Radiology (SCR) 2023, June 22 - 24, 2023, Davos, Switzerland*. 2023. URL: https://congress.sgr-ssr.ch/file/2023/08/SCR-23_OAB.pdf.
- [77] D. Cester, A. Boss, and S. Shim. "Dose measurement and comparison between mammography and breast CT". In: *European Congress of Radiology (ECR) 2023, March 1 - 4, 2023, Vienna, Austria*. 2023. URL: <https://connect.myesr.org/course/image-quality-and-patient-dose-in-breast-ct-and-other-breast-imaging-techniques/>.
- [78] M. Dietzel. "Spiral Breast CT: An update". In: *Symposium on contrast enhanced mammography (CEM), March 29, 2023, online*. 2023. URL: <https://school-of-radiology.com/contrast-enhanced-mammography-cem-symposium/>.

- [79] L. Huck, M. Bode, C. Wilpert, E. Zanderigo, E. Dethlefsen, V. Raaff, S. Morscheid, E. Wenkel, and C. Kuhl. "Erste Erfahrungen mit dem Photon-Counting-CT der Brust zur Erkennung von Mikroverkalkungen." In: *104. Deutscher Röntgenkongress (RÖKO), May 17 - 19, 2023, Wiesbaden, Germany*. 2023. URL: <https://2023.roentgenkongress.de/veranstaltung/mammadiagnostik-iv-neues-zum-ct/>.
- [80] O. V. V. Ivashchenko. "Breast glandular dose of a clinical photon-counting spiral breast CT system: Monte Carlo simulation study". In: *European Congress of Radiology (ECR) 2023, March 1 - 4, 2023, Vienna, Austria*. 2023. URL: <https://connect.myesr.org/course/image-quality-and-patient-dose-in-breast-ct-and-other-breast-imaging-techniques/>.
- [81] D. Kolditz. "Moderne Methoden in der Brustbildgebung". In: *Weiterbildung Medizinische Physik für Physiker*innen, Modul 4/Röntgendiagnostik, Universität Heidelberg, November 2023, online*. 2023. URL: <https://www.suedwissen.de/kurse/medizinische-physik-fuer-physikerinnen/>.
- [82] A. Landsmann, C. Ruppert, K. Borkowski, A. Ciritsis, C. Rossi, and A. Boss. "Assessing microcalcifications in breast CT: A BI-RADS-based approach using a U-net convolutional neural network". In: *Swiss Congress of Radiology (SCR) 2023, June 22 - 24, 2023, Davos, Switzerland*. 2023. URL: https://congress.sgr-ssr.ch/file/2023/08/SCR-23_OAB.pdf.
- [83] A. Landsmann. "Clinical feasibility of breast CT as an opportunistic screening modality: a prospective trial of 1614 patients in Switzerland". In: *European Congress of Radiology (ECR) 2023, March 1 - 4, 2023, Vienna, Austria*. 2023. URL: <https://connect.myesr.org/course/ways-towards-personalised-breast-screening/>.
- [84] K. Ridder. "Mamma-CT". In: *JCA Medical Seminars, Breast Imaging Course - Screening & Staging, November 14 - 15, 2023, online*. 2023. URL: <https://www.jcaseminars.com/schedule/breast-imaging-course-screening-staging>.
- [85] K. Ridder. "The Mamma-CT - senological diagnostics in a new dimension". In: *JCA Medical Seminars, The Future of Radiology: Diagnostic Imaging Update, January 25, 2023, online*. 2023. URL: <https://www.jcaseminars.com/events/the-future-of-radiology-diagnostic-imaging-update>.
- [86] R. Schulz-Wendtland. "Brust-CT – Innovative Mammadiagnostik". In: *AWOgyn Mamma-Workshop Onkoplastik, AGAPLESION MARKUS KRANKENHAUS Frankfurt, November 25, 2023, Frankfurt, Germany*. 2023. URL: https://www.awogyn.de/fileadmin/awogyn/Veranstaltungen/2023/AWOgyn_flyers_-_Print_Final.pdf.
- [87] M. Wetzl, A. Kämena, K. Ridder, M. Uder, and S. Ohlmeyer. "Explorative Multicenterstudie zur Beurteilung des Patientenkomforts, der Bildqualität und der Benutzerfreundlichkeit der dedizierten Spiral-CT der Brust". In: *104. Deutscher Röntgenkongress (RÖKO), May 17 - 19, 2023, Wiesbaden, Germany*. 2023. URL: <https://2023.roentgenkongress.de/veranstaltung/mammadiagnostik-iv-neues-zum-ct/>.
- [88] M. Bode. "Die kontrastmittelverstärkte Brust-CT - Alternative zu CESM und MRT?" In: *103. Deutscher Röntgenkongress (RÖKO), May 25 - 27, 2022, Wiesbaden, Germany*. 2022. URL: <https://www.roentgenkongress.de/de-DE/9515/programmverzeichnis/show/mammadiagnostik-brust-ct-und-andere-neue-methoden-ii/>.

- [89] A. Boss. "Die Brust-CT im Blickpunkt der Früherkennung". In: *103. Deutscher Röntgenkongress (RÖKO), May 25 - 27, 2022, Wiesbaden, Germany*. 2022. URL: <https://www.roentgenkongress.de/de-DE/9515/programmverzeichnis/show/mammadiagnostik-brust-ct-und-andere-neue-methoden-i/>.
- [90] Y. Hämisch. "Industry Presentation: Enter the era of Photon Counting X-Ray imaging with Varex Technology: Varex Imaging Corp". In: *Annual Meeting of Radiological Society of North America (RSNA) 2022, November 26 - 30, 2022, Chicago, USA*. 2022. URL: <https://epro02.ativ.me/web/page.php?page=Session&project=RSNA22&id=S1132>.
- [91] D. Kolditz. "Industry Photon-Counting CT Update: nu:view - Photon-Counting Breast CT". In: *SPIE Medical Imaging Conference 2022, Workshop on Photon-Counting CT: Current Status and Future Direction, February 20 - 24, 2022, San Diego, USA (2022)*. URL: <https://spie.org/medical-imaging/event/workshop-photon-counting-ct-current-status-and-future-direction/2620564>.
- [92] A. Landsmann, J. Wieler, P. Hejduk, A. Ciritsis, K. Borkowski, C. Rossi, and A. Boss. "Applied Machine Learning in spiral Breast CT: Can we train a deepConvolutional Neural Network for automatic, standardized and observer independent Classification of Breast Density?" In: *Swiss Congress of Radiology (SCR) 2022, June 23 - 25, 2022, Fribourg, Switzerland*. 2022. URL: https://congress.sgr-ssr.ch/file/2022/08/SCR-22_Online-Abstract-Book.pdf.
- [93] A. Landsmann, C. Ruppert, P. Hejduk, A. Ciritsis, K. Borkowski, C. Rossi, and A. Boss. "Radiomics in Spiral Breast CT: Can we use Texture Analysis in the Classification of Breast Density?" In: *Swiss Congress of Radiology (SCR) 2022, June 23 - 25, 2022, Fribourg, Switzerland*. 2022. URL: https://congress.sgr-ssr.ch/file/2022/08/SCR-22_Online-Abstract-Book.pdf.
- [94] A. Landsmann, C. M. Ruppert, J. Wieler, P. Hejduk, A. Ciritsis, K. Borkowski, M. Wurnig, C. Rossi, and A. Boss. "Radiomics in spiral breast CT: potential of texture analysis in breast density classification". In: *European Congress of Radiology (ECR) 2022, July 13 - 17, 2022, Vienna, Austria*. 2022. URL: https://connect.myesr.org/app/uploads/brochure_28413_scientific.pdf.
- [95] M. Marcon. "Mamma-CT - the future?" In: *Swiss Congress of Radiology (SCR) 2022, June 23 - 25, 2022, Fribourg, Switzerland*. 2022. URL: https://congress.sgr-ssr.ch/file/2022/08/SCR-22_Online-Abstract-Book.pdf.
- [96] S. Ohlmeyer, M. Wetzl, S. Kratz, R. Schulz-Wendtland, M. W. Beckmann, M. Uder, and E. Wenkel. "Comparison of Hounsfield units in a newly developed spiral breast CT equipped with direct converting detector technology to Hounsfield units in MSCT". In: *European Congress of Radiology (ECR) 2022, July 13 - 17, 2022, Vienna, Austria*. 2022. URL: https://connect.myesr.org/app/uploads/brochure_28413_scientific.pdf.
- [97] S. Ohlmeyer, M. Wetzl, R. Erber, R. Schulz-Wendtland, M. Uder, and E. Wenkel. "Quantification of Contrast Enhancement of Breast Cancer in direct converting, photon-counting Spiral Breast CT: Immunohistochemical Subtypes and Grading". In: *European Congress of Radiology (ECR) 2022, July 13 - 17, 2022, Vienna, Austria*. 2022. URL: https://connect.myesr.org/app/uploads/brochure_28413_scientific.pdf.



- [98] S. Ohlmeyer, M. Wetzl, R. Erber, J. Emons, M. Uder, and E. Wenkel. "Quantifizierung der Kontrastmittelanreicherung von Brustkrebs in der Spiralbrust-CT: Immunhistochemische Subtypen und Grading". In: *103. Deutscher Röntgenkongress (RÖKO), May 25 - 27, 2022, Wiesbaden, Germany*. 2022. URL: <https://www.roentgenkongress.de/de-DE/9515/programmverzeichnis/show/mammadiagnostik-brust-ct-und-andere-neue-methoden-i/>.
- [99] K. Ridder. "Invited lecture: Practical experience and lessons learned with breast CT". In: *16th International Workshop on Breast Imaging (IWBI) 2022, May 22 - 25, 2022, Leuven, Belgium*. 2022. URL: <https://iwbi2022.com/programma-at-glance/>.
- [100] V. Ruth, D. Heinemann, C. Steiding, and D. Kolditz. "Investigation on spectral applications for a photon-counting spiral breast CT system without and with charge sharing correction". In: *CERN SpecXray 6 - 6th Workshop on Medical Applications of Spectroscopic X-ray Detectors, August 29 - September 1, 2022, Geneva, Switzerland*. 2022.
- [101] S. Shim and A. Boss. "A breast population study using 3-D breast CT images". In: *Swiss Congress of Radiology (SCR) 2022, June 23 - 25, 2022, Fribourg, Switzerland*. 2022. URL: https://congress.sgr-ssr.ch/file/2022/08/SCR-22_Online-Abstract-Book.pdf.
- [102] M. Wetzl, E. Wenkel, A. Kämena, D. Ridder, M. Uder, and S. Ohlmeyer. "Explorative Multicenter Study to Assess Patient Comfort: Radiographers Usability and Image Quality of Spiral Breast CT". In: *Annual Meeting of Radiological Society of North America (RSNA) 2022, November 26 - 30, 2022, Chicago, USA*. 2022. URL: <https://eppro02.ativ.me/web/page.php?page=Session&project=RSNA22&id=P6195>.
- [103] C. Wilpert, L. Huck, E. K. Dethlefsen, E. Zanderigo, V. Raaff, M. Wetzl, S. Ohlmeyer, E. Wenkel, and C. Kuhl. "Anreicherungs-Kinetik von invasiven Mammakarzinomen in der dynamischen kontrastverstärkten photon-counting Brust-CT (PC-BCT) vergleichend zur dynamischen Brust-MRT". In: *103. Deutscher Röntgenkongress (RÖKO), May 25 - 27, 2022, Wiesbaden, Germany*. 2022. DOI: [10.1055/s-0042-1749854](https://doi.org/10.1055/s-0042-1749854).
- [104] C. Wilpert, L. Huck, E. K. Dethlefsen, E. Zanderigo, V. Raaff, E. Wenkel, and C. Kuhl. "Erste Ergebnisse der dynamischen kontrastverstärkten photon-counting Brust CT (PC-BCT) von DCIS". In: *103. Deutscher Röntgenkongress (RÖKO), May 25 - 27, 2022, Wiesbaden, Germany*. 2022. DOI: [10.1055/s-0042-1749853](https://doi.org/10.1055/s-0042-1749853).
- [105] N. Berger, M. Marcon, J. Wieler, T. Frauenfelder, and A. Boss. "Contrast-enhanced Breast CT: Preliminary result". In: *Swiss Congress of Radiology (SCR) 2021, Online*. 2021. URL: https://congress.sgr-ssr.ch/file/2022/01/SCR-21_OAB_Final.pdf.
- [106] L. Hajduk. "Webinar Mamma-CT". In: *EDUMED MC- und CT-Training, May 11, 2021, online*. 2021. URL: <https://www.edumedag.com/kurse/mamma-ct/>.
- [107] L. Hajduk and A. Boss. "Webinar Mamma-CT". In: *EDUMED MC- und CT-Training, September 28, 2021, online*. 2021. URL: <https://www.edumedag.com/kurse/mamma-ct/>.



- [108] L. Huck. "First Experiences With Dedicated Photon-counting CT Of The Breast For Detection Of Microcalcifications". In: *Annual Meeting of Radiological Society of North America (RSNA) 2021, November 28 - December 2, 2021, Chicago, USA*. 2021. URL: <https://rsna2021.rsna.org/live-stream/23135135/Breast-Tuesday-Poster-Discussions>.
- [109] D. Kolditz. "Brust-CT – Tag der offenen (Scanner-)Tür". In: *g'scheid schlau! Das Lange Wochenende der Wissenschaften 2021, October 21 - 24, Erlangen, Germany / online*. 2021. URL: <https://www.gscheid-schlau.de>.
- [110] M. Marcon. "Detection delle lesioni e dose nella TC spirale mammaria con tecnologia photon counting". In: *Joint congress of the Società Italiana di Radiologia Medica e Interventistica (SIRM) 2021, October 28 - 30, 2021, Rimini, Italy*. 2021. URL: <https://sirm.org/wp-content/uploads/2021/08/Rimini-2021-Programma-4.pdf>.
- [111] M. Marcon. "EUSOBI Webinar 2.9 / Breast CT". In: *EUSOBI Webinar Series 2 // 2021 // Advancements in Mammography, July 6, 2021, online*. 2021. URL: <https://www.eusobi.org/breast-imaging-webinars/>.
- [112] M. Marcon. "Thinking women! – Compression-free 3D imaging with Breast CT". In: *EUSOBI 2021 Online, Industry-Sponsored Session, sponsored by AB-CT – Advanced Breast-CT, October 6, 2021, online*. 2021. URL: https://www.eusobi.org/content-eusobi/uploads/EUSOBI-2021-ONLINE_Industry-sponsored-Programme.pdf.
- [113] S. Ohlmeyer. "Brust-CT: Eine Alternative?" In: *102. Deutscher Röntgenkongress (RÖKO), March 27 - November 8, 2021, online*. 2021. URL: <https://www.roentgenkongress.de/de-DE/7162/programm/show/2960/Mammadiagnostik-I-Mammadiagnostik-mit-Kontrastmittel-welcher-Kontrast-ist-der-Beste-/>.
- [114] K. Ridder. "CT Imaging of the Breast". In: *5th Webinar of the Hellenic Breast Surgical Society (HBSS), Medical and Technological Developments in Breast Cancer Innovations and Technologies in breast cancer-diagnosis and treatments, November 27, 2021, online*. 2021. URL: <https://www.exem2000.gr/images/programs/2021/SCIENTIFIC-PROGRAMME-BOTH-SESSIONS-NOVEMBER-27th-2021.pdf>.
- [115] K. Ridder. "Das Mamma-CT – senologische Diagnostik in einer neuen Dimension". In: *XXI. Castroper Mammakarzinom-Meeting, March 24, 2021, online*. 2021. URL: https://www.linkedin.com/posts/dr-med-karsten-ridder-42162a11a_sehr-verehrte-frau-kollegin-sehr-geehrter-activity-6777140832228151296-0M5D.
- [116] K. Ridder. "Mamma CT. La diagnostica senologica in una nuova dimensione". In: *2° Congresso Nazionale AITeRS, May 28 - 29, 2021, online*. 2021. URL: https://www.aiters.it/wp-content/uploads/2019/05/NAZIONALE-AITERS-2021_PROGRAMMA-DEFINITIVO.pdf.
- [117] K. Ridder. "Mamma-CT, senologische Diagnostik in einer neuen Dimension". In: *Jahreskongress der Rheinisch-Westfälischen Röntgengesellschaft e.V. 2021, November 4 - 5, 2021, Dortmund, Germany*. 2021. URL: <https://radiologiekongress.ruhr/programm/04-november-2021/>.
- [118] K. Ridder. "The Mamma CT, Senological diagnostics in a new dimension". In: *Mammography Symposium of the Society of Radiographers Finland (SORF), October 7 - 8, 2021, Helsinki, Finland*. 2021. URL: <https://www.sorf.fi/>.



- [119] V. Ruth, C. Steiding, D. Heinemann, and D. Kolditz. "Brust-CT - Technischer Hintergrund, klinische Arbeitsweise, normative Einordnung, Abnahmeprüfung, Konstanzprüfung und Sachverständigenprüfung". In: *Weiterbildungstagung der Röntgen-Sachverständigen vom TÜV SÜD und TÜV Hessen, October 12 - 14, 2021, Pfofeld, Germany*. 2021.
- [120] S. Shim, J. Unkelbach, and A. Boss. "Estimation of radiation dose in spiral breast CT". In: *Swiss Congress of Radiology (SCR) 2021, Online*. 2021. URL: https://congress.sgr-ssr.ch/file/2022/01/SCR-21_OAB_Final.pdf.
- [121] S. Shim, D. Cester, L. Ruby, C. Bluthgen, M. Marcon, N. Berger, J. Unkelbach, and A. Boss. "Fully automated breast segmentation on novel breast computed tomography images". In: *Swiss Congress of Radiology (SCR) 2021, Online*. 2021. URL: https://congress.sgr-ssr.ch/file/2022/01/SCR-21_OAB_Final.pdf.
- [122] S. Shim, D. Kolditz, C. Steiding, V. Ruth, A. M. Hoetker, J. Unkelbach, and A. Boss. "Radiation dose estimates for a novel spiral breast CT imager". In: *Annual Meeting of Radiological Society of North America (RSNA) 2021, November 28 - December 2, 2021, Chicago, USA*. 2021. URL: <https://rsna2021.rsna.org/live-stream/23129906/Physics-Breast-Imaging>.
- [123] E. Wenkel. "Brust-CT: update and future". In: *25. Internationaler Fortbildungskurs Moderne Mammadiagnostik und -Therapie, June 2 - 3, 2021, online*. 2021. URL: <https://www.mammakurs-erlangen.de/de/Programm/>.
- [124] C. Wilpert. "First Results Of Dynamic Contrast-enhanced (DCE) Photon-counting Breast CT (PC-BCT) Imaging Of DCIS". In: *Annual Meeting of Radiological Society of North America (RSNA) 2021, November 28 - December 2, 2021, Chicago, USA*. 2021. URL: <https://rsna2021.rsna.org/live-stream/23135139/Breast-Wednesday-Poster-Discussions>.
- [125] V. Ruth, D. Kolditz, C. Steiding, and W. A. Kalender. "Optimization of Photon-Counting Breast CT for Spectral Single-Scan Contrast-Enhanced Imaging: A Phantom Study". In: *European Congress of Radiology (ECR) 2020, July 15 - 19, 2020, Vienna, Austria / online*. 2020. URL: <https://connect.myesr.org/course/contrast-enhanced-x-ray-imaging-of-the-breast/>.
- [126] R. Schulz-Wendtland. "Welche Rolle spielt das Brust-CT in der Komplementären Mammadiagnostik?" In: *Feierliche Einweihung des Brust-CTs am Universitätsklinikum Erlangen, March 4, 2020, Erlangen, Germany*. 2020. URL: <https://www.uk-erlangen.de/presse/pressemitteilungen/ansicht/detail/neues-bildgebungsverfahren-fuer-die-brustkrebsdiagnostik/>.
- [127] C. Steiding. "Physikalische Grundlagen des Mamma-CTs". In: *Feierliche Einweihung des Brust-CTs am Universitätsklinikum Erlangen, March 4, 2020, Erlangen, Germany*. 2020. URL: <https://www.uk-erlangen.de/presse/pressemitteilungen/ansicht/detail/neues-bildgebungsverfahren-fuer-die-brustkrebsdiagnostik/>.
- [128] E. Wenkel. "Bildbeispiele der Brust-CT". In: *Feierliche Einweihung des Brust-CTs am Universitätsklinikum Erlangen, March 4, 2020, Erlangen, Germany*. 2020. URL: <https://www.uk-erlangen.de/presse/pressemitteilungen/ansicht/detail/neues-bildgebungsverfahren-fuer-die-brustkrebsdiagnostik/>.



- [129] N. Berger, M. Marcon, N. Saltybaeva, W. A. Kalender, H. Alkadhi, T. Frauenfelder, and A. Boss. "Dedicated breast-CT with a photon-counting detector: Initial results of clinical in-vivo imaging". In: *Swiss Congress of Radiology (SCR) 2019, June 13 - 15, 2019, St. Gallen, Switzerland*. 2019. URL: https://congress.sgr-ssr.ch/file/2021/03/SCR-19_OAB_AFTER-CONGRESS-UPDATE.pdf.
- [130] N. Berger, M. Marcon, N. Saltybaeva, W. A. Kalender, H. Alkadhi, T. Frauenfelder, and A. Boss. "Dedicated spiral-CT of the breast: initial clinical in-vivo imaging". In: *European Congress of Radiology (ECR) 2019, February 27 - March 3, 2019, Vienna, Austria*. 2019. DOI: [10.26044/ecr2019/c-2888](https://doi.org/10.26044/ecr2019/c-2888).
- [131] A. Boss. "Clinical spiral photon counting breast CT: a 3D mammography technique without painful compression - experiences with > 400 patients". In: *1st International Symposium on Photon Counting Technologies & Applications - Medical Applications, July 5 - 6, 2019, Munich, Germany*. 2019. URL: <https://directconversion.com/2019/07/05/application-innovation-centre-opens/>.
- [132] A. Boss, N. Berger, M. Marcon, and B. Kalender. "First hand experience reading Breast CT images – best practices from University Hospital Zurich". In: *EUSOBI Mammography & beyond Course 2019, February 25 - 26, 2019, Vienna, Austria*. 2019. URL: https://www.eusobi.org/content-eusobi/uploads/EUSOBI-Mammography-beyond-2019_Course-Programme.pdf.
- [133] B. Kalender. "Erste Erfahrung bei der Einbindung einer neuen Modalität". In: *DICOM-Treffen 2019, July 4 - 6, 2019, Mainz, Germany*. 2019. URL: <https://dicomtrefren.unimedizin-mainz.de/>.
- [134] W. A. Kalender. "Spiral-CT and Single Photon Counting: A future-prone success story?" In: *1st International Symposium on Photon Counting Technologies & Applications - Medical Applications, July 5 - 6, 2019, Munich, Germany*. 2019. URL: <https://directconversion.com/2019/07/05/application-innovation-centre-opens/>.
- [135] W. A. Kalender. "The different techniques behind CT of the breast". In: *EUSOBI Mammography & beyond Course 2019, February 25 - 26, 2019, Vienna, Austria*. 2019. URL: https://www.eusobi.org/content-eusobi/uploads/EUSOBI-Mammography-beyond-2019_Course-Programme.pdf.
- [136] D. Kolditz. "Technical characteristics of the first commercially available photon-counting spiral breast-CT system". In: *1st International Symposium on Photon Counting Technologies & Applications - Medical Applications, July 5 - 6, 2019, Munich, Germany*. 2019. URL: <https://directconversion.com/2019/07/05/application-innovation-centre-opens/>.
- [137] D. Kolditz. "Technical characteristics of the first medical breast CT". In: *1st International Symposium on Photon Counting Technologies & Applications - Industrial Applications, July 5 - 6, 2019, Munich, Germany*. 2019. URL: <https://directconversion.com/2019/07/05/application-innovation-centre-opens/>.
- [138] D. Kolditz, C. Steiding, V. Ruth, and W. A. Kalender. "Technical characteristics and initial clinical patient results of a photon-counting spiral breast-CT system". In: *CERN SpecXray 5 - 5th Workshop on Medical Applications of Spectroscopic X-ray Detectors, May 13 - 16, 2019, Geneva, Switzerland*. 2019. URL: <http://specxray.web.cern.ch/specxray/>.



- [139] N. Saltybaeva, S. Shim, A. Boss, and H. Alkadhi. "First clinical application of spiral breast CT: Patient-specific radiation dose assessment". In: *Swiss Congress of Radiology (SCR) 2019, June 13 - 15, 2019, St. Gallen, Switzerland*. 2019. URL: https://congress.sgr-ssr.ch/file/2021/03/SCR-19_OAB_AFTER-CONGRESS-UPDATE.pdf.
- [140] N. Saltybaeva, M. Marcon, N. Berger, D. Kolditz, C. Steiding, A. Boss, and H. Alkadhi. "First clinical application of spiral breast CT with photon-counting detector: patient-specific radiation dose assessment". In: *European Congress of Radiology (ECR) 2019, February 27 - March 3, 2019, Vienna, Austria*. 2019. DOI: [10.1186/s13244-019-0713-y](https://doi.org/10.1186/s13244-019-0713-y). URL: <https://insightsimaging.springeropen.com/track/pdf/10.1186/s13244-019-0713-y>.
- [141] S. S. Shim, N. Saltybaeva, N. Berger, M. Marcon, A. Boss, and H. Alkadhi. "Evaluation of high-contrast spatial resolution and low-contrast detectability for the first clinical spiral breast CT: Evidence from a phantom study". In: *Swiss Congress of Radiology (SCR) 2019, June 13 - 15, 2019, St. Gallen, Switzerland*. 2019. URL: https://congress.sgr-ssr.ch/file/2021/03/SCR-19_OAB_AFTER-CONGRESS-UPDATE.pdf.
- [142] N. Berger. "Spiral-CT der Brust: Erste Erfahrungen". In: *Festsymposium zur Inbetriebnahme des nu:view: dedizierte Brust-Computertomographie, October 5, 2018, Zurich, Switzerland*. 2018.
- [143] B. Kalender. "Projekt nu:view: Einblicke in ein Start-up Unternehmender der Medizintechnik". In: *Festsymposium zur Inbetriebnahme des nu:view: dedizierte Brust-Computertomographie, October 5, 2018, Zurich, Switzerland*. 2018.
- [144] W. A. Kalender. "Spiral-CT der Brust: Technik". In: *Festsymposium zur Inbetriebnahme des nu:view: dedizierte Brust-Computertomographie, October 5, 2018, Zurich, Switzerland*. 2018.
- [145] N. Saltybaeva. "Clinical spiral Breast-CT: first assessment of applied radiation dose". In: *Festsymposium zur Inbetriebnahme des nu:view: dedizierte Brust-Computertomographie, October 5, 2018, Zurich, Switzerland*. 2018.
- [146] D. Kolditz, C. Steiding, F. Lück, V. Ruth, and W. A. Kalender. "Dosimetry Approaches and Results for Photon-Counting Spiral Breast CT". In: *Annual Meeting of Radiological Society of North America (RSNA) 2016, November 27 - December 2, 2016, Chicago, USA*. 2016. URL: <http://archive.rsna.org/2016/16010617.html>.
- [147] A.-C. Rössler, E. Wenkel, C. Steiding, V. Ruth, S. Kratz, R. Schultz-Wendtland, C. Preuss, D. Kolditz, and W. A. Kalender. "Photon-counting breast CT (pcBCT) performance tests on specimens in comparison with digital mammography and breast tomosynthesis". In: *European Congress of Radiology (ECR) 2016, March 2 - 6, 2016, Vienna, Austria*. 2016. DOI: [10.1594/ecr2016/C-0367](https://doi.org/10.1594/ecr2016/C-0367).
- [148] A.-C. Rössler, E. Wenkel, C. Steiding, V. Ruth, D. Kolditz, and W. A. Kalender. "High-resolution low-dose breast CT performance tests on surgical specimens in comparison with digital mammography and breast tomosynthesis". In: *Annual Meeting of Radiological Society of North America (RSNA) 2016, November 27 - December 2, 2016, Chicago, USA*. 2016. URL: <http://archive.rsna.org/2016/16005976.html>.



- [149] V. Ruth, C. Steiding, D. Kolditz, F. Lück, A.-C. Roessler, and W. A. Kalender. "Comparative Assessment of High- and Low-Contrast Detectability Performance in Digital Mammography, Breast Tomosynthesis, and Dedicated Photon-Counting Breast Computed Tomography: A Phantom Study". In: *Annual Meeting of Radiological Society of North America (RSNA) 2016, November 27 - December 2, 2016, Chicago, USA*. 2016. URL: <http://archive.rsna.org/2016/16007279.html>.
- [150] C. Steiding, D. Kolditz, V. Ruth, and W. A. Kalender. "Framework for Objective and Fully Automated Image Quality Control of Dedicated Breast CT Systems". In: *Annual Meeting of Radiological Society of North America (RSNA) 2016, November 27 - December 2, 2016, Chicago, USA*. 2016. URL: <http://archive.rsna.org/2016/16044266.html>.
- [151] Z. Jiang, M. Beister, C. Steiding, D. Kolditz, and W. A. Kalender. "Fast Implementation of the Katsevich Reconstruction Algorithm for Dedicated Breast CT". In: *Annual Meeting of Radiological Society of North America (RSNA) 2015, November 29 - December 4, 2015, Chicago, USA*. 2015. URL: archive.rsna.org/2015/15018503.html.
- [152] W. A. Kalender. "Breast CT. Breast Imaging Modalities: Beyond the Conventional". In: *European Congress of Radiology (ECR) 2015, March 4 - 8, 2015, Vienna, Austria*. 2015.
- [153] W. A. Kalender, D. Kolditz, M. Hupfer, A.-C. Rössler, R. Schulz-Wendtland, and P. Fasching. "Dedicated high-resolution breast CT allows imaging micro-calcifications down to 130 μm at screening mammography dose levels". In: *Annual Meeting of Radiological Society of North America (RSNA) 2015, November 29 - December 4, 2015, Chicago, USA*. 2015. URL: <http://archive.rsna.org/2015/15016704.html>.
- [154] A. Schwab, D. Kolditz, M. Hupfer, M. Beister, and W. A. Kalender. "Eine Monte Carlo basierte Methode zur Streustrahlenartefaktreduktion in der Brust-Computertomografie". In: *46. Jahrestagung der Deutschen Gesellschaft für Medizinische Physik (DGMP) e. V. 2015, September 9 - 12, 2015, Marburg, Germany*. 2015. URL: http://www.dgmp-kongress.de/fileadmin/congress/media/dgmp/pdf/DGMP2015_Abstractband.pdf.
- [155] J. D. Kuttig, C. Steiding, D. Kolditz, and W. A. Kalender. "Detective Quantum Efficiency Investigation Demonstrates High Dose Saving Potential for Breast CT Using a Cadmium Telluride Detector". In: *Annual Meeting of Radiological Society of North America (RSNA) 2014, November 30 - December 5, 2014, Chicago, USA*. 2014. URL: <http://rsna2014.rsna.org/program/details/?emID=14017066>.
- [156] C. Steiding, D. Kolditz, F. Althoff, and W. A. Kalender. "Fully Automated Geometric Calibration of a Tiled Directly-converting Single X-ray Photon Counting Detector Array for CT". In: *Annual Meeting of Radiological Society of North America (RSNA) 2014, November 30 - December 5, 2014, Chicago, USA*. 2014. URL: <http://rsna2014.rsna.org/program/details/?emID=14013411>.
- [157] C. Steiding, D. Kolditz, A.-C. Rössler, and W. A. Kalender. "Quantitative assessment of the spatial dependence of non-stationary high-contrast spatial resolution, low-contrast detectability, and noise behaviour in 3D imaging of the breast". In: *European Congress of Radiology (ECR) 2014, March 6 - 10, 2014, Vienna, Austria*. 2014. URL: https://www.myesr.org/html/img/pool/ECR_2014_FinalProgramme_OnlineVersion.pdf#page=347.



- [158] S. V. Vollmar, D. Kolditz, M. Hupfer, and W. A. Kalender. "Dose to Organs and Tissues from Scattered Radiation in Breast CT: Impact on Effective Dose". In: *Annual Meeting of Radiological Society of North America (RSNA) 2014, November 30 - December 5, 2014, Chicago, USA*. 2014. URL: <http://rsna2014.rsna.org/program/details/?emID=14003964>.
- [159] R. Hendrych, M. Beister, and W. A. Kalender. "Design and Evaluation of an Interactive MPR Viewer for Real-time Filtering of Large High-resolution Breast CT Data". In: *Annual Meeting of Radiological Society of North America (RSNA) 2013, December 1 - 6, 2013, Chicago, USA*. 2013. URL: <http://rsna2013.rsna.org/pdf/PDFFiles/13027387.pdf>.
- [160] W. A. Kalender. "Concepts for High-Resolution Low-Dose CT of the Breast." In: *Physikalisch-Medizinische Sozietät Erlangen 2013, Erlangen, Germany* (2013).
- [161] W. A. Kalender, D. Kolditz, A.-C. Rössler, C. Steiding, E. Wenkel, and R. Schultz-Wendtland. "Dedicated High-resolution Breast CT Can Outperform Digital Mammography and Breast Tomosynthesis at Equivalent Dose Levels". In: *Annual Meeting of Radiological Society of North America (RSNA) 2013, December 1 - 6, 2013, Chicago, USA*. 2013. URL: http://rsna2013.rsna.org/pdf/index.cfm?em_id=13021617.
- [162] F. Lück, D. Kolditz, M. Hupfer, and W. A. Kalender. "Experimental Validation of Shaped Filter Design with Variable Source-to-Filter Distance for Breast CT". In: *Annual Meeting of Radiological Society of North America (RSNA) 2013, December 1 - 6, 2013, Chicago, USA*. 2013. URL: http://rsna2013.rsna.org/pdf/index.cfm?em_id=13019559.
- [163] A.-C. Rössler, C. Steiding, D. Kolditz, E. Wenkel, R. Schultz-Wendtland, and W. A. Kalender. "Objective Evaluation of Low-contrast Detectability and High-contrast Resolution for Different Breast Imaging Modalities by Means of Breast Simulating Phantoms with Arbitrary Positionable Inserts". In: *Annual Meeting of Radiological Society of North America (RSNA) 2013, December 1 - 6, 2013, Chicago, USA*. 2013. URL: http://rsna2013.rsna.org/pdf/index.cfm?em_id=13044232.
- [164] W. A. Kalender. "Breast CT - coming soon". In: *EUSOBI 2012, October 12 - 13, 2012, Barcelona, Spain*. 2012.
- [165] W. A. Kalender. "Concepts for High-Resolution Low-Dose CT of the Breast". In: *Annual Meeting of Radiological Society of North America (RSNA) 2012, November 25 - 30, 2012, Chicago, USA*. 2012.
- [166] W. A. Kalender. "CT of the Breast: a real innovation?" In: *6th Int. Congress on MRM, September 27 - 29, 2012, Jena, Germany* (2012).
- [167] W. A. Kalender. "Verbesserte Brustkrebserkennung und -diagnostik mit CT." In: *Wissenschaftstag der Metropolregion Nürnberg, July 20, 2012, Erlangen, Germany* (2012).
- [168] W. A. Kalender. "Übersichtsvortrag: Aktuelle Trends in der Computertomographie." In: *43. Jahrestagung der Deutschen Gesellschaft für Medizinische Physik, September 26 - 29, 2012, Jena, Germany* (2012).
- [169] W. Kalender. "CT-Technik - State of the art and future perspective." In: *7. Internationales Symposium, January 11 - 14, 2012, Garmisch-Partenkirchen, Germany* (2012).



- [170] W. Kalender. "Future prospects for CT - How far can CT technology be developed?" In: *BIR Sylvanus Thompson Memorial Lecture, April 25, 2012, London, UK* (2012).
- [171] W. Kalender. "Low-dose high-resolution CT of the breast". In: *14th Annual International Symposium on MDCT, June 17 - 20, 2012, San Francisco, USA*. 2012.
- [172] W. Kalender. "Spiral-CT of the breast: technique and diagnostic options." In: *Universitätsspital Bern, January 28, 2012, Bern, Switzerland* (2012).
- [173] J. Wilhelmy, J. Vaupel, and W. A. Kalender. "CT Raw Image Data Compression Using Wavelet Transformation on FPGAs for High Speed Data Transfer." In: *Annual Meeting of Radiological Society of North America (RSNA) 2012, November 25 - 30, 2012, Chicago, USA*. 2012.
- [174] M. Beister, R. Hendrych, D. Kolditz, and W. A. Kalender. "Dose Efficient Model-based Iterative Reconstruction for a Dedicated Female Breast CT Scanner". In: *Annual Meeting of Radiological Society of North America (RSNA) 2011, November 27 - December 2, 2011, Chicago, USA*. 2011. URL: http://rsna2011.rsna.org/search/event_display.cfm?am_id=2&em_id=11005205&printmode=Y&autoprint=N.
- [175] W. A. Kalender. "3D-Hochauflösungs-CT. Neue Entwicklungen für die Brustkrebstdiagnostik". In: *FAPS Fachseminar 2011, Erlangen, Germany*. 2011.
- [176] W. A. Kalender. "Verbesserte Brustkrebsterkennung mit CT: Ein neues Gerätekonzept mit hoher Auflösung und sehr niedriger Dosis". In: *Medica 2011, November 16 - 19, 2011, Düsseldorf, Germany*. 2011.
- [177] W. Kalender. "Concepts for High-Resolution Low-Dose CT of the Breast." In: *Annual Meeting of Radiological Society of North America (RSNA) 2011, November 27 - December 2, 2011, Chicago, USA*. 2011.
- [178] D. Kolditz, M. Beister, and W. A. Kalender. "Volume-of-Interest Imaging for High Image Quality at Reduced Dose in Dedicated Female Breast CT". In: *Annual Meeting of Radiological Society of North America (RSNA) 2011, November 27 - December 2, 2011, Chicago, USA*. 2011. URL: http://rsna2011.rsna.org/search/event_display.cfm?am_id=2&em_id=11008972&printmode=Y&autoprint=N.
- [179] F. Lück, M. Weigel, D. Kolditz, S. V. Vollmar, M. Hupfer, and W. A. Kalender. "Effect of Shaped Filters Designed for Breast CT on Dose and Image Quality". In: *Annual Meeting of Radiological Society of North America (RSNA) 2011, November 27 - December 2, 2011, Chicago, USA*. 2011. URL: http://rsna2011.rsna.org/search/event_display.cfm?am_id=2&em_id=11010918&printmode=Y&autoprint=N.
- [180] W. A. Kalender. "Latest development in Breast CT". In: *The British Institute of Technology, Symposium Mammographicum Conference 2010, July 11 - 13, 2012, Liverpool, UK* (2010). URL: <http://www.birpublications.org/doi/pdf/10.1259/conf-symp.2010>.
- [181] W. A. Kalender. "Concepts for High-Resolution CT of the Breast". In: *Digital Mammography, International Workshop on Digital Mammography 2010, Lecture Notes in Computer Science*. Springer, 2010, pp. 421–427. ISBN: 3642136656. DOI: [10.1007/978-3-642-13666-5_57](https://doi.org/10.1007/978-3-642-13666-5_57).



- [182] M. Weigel, S. Vollmar, and W. A. Kalender. "Estimations of Dose for Dedicated Breast CT at Optimized Settings with Respect to Lesion Type and Size." In: *Annual Meeting of Radiological Society of North America (RSNA) 2010, November 28 - December 3, 2010, Chicago, USA*. 2010. URL: http://rsna2010.rsna.org/search/event_display.cfm?em_id=9002796.
- [183] V. Vollmar, O. Langer, M. Weigel, H. Bosmans, and W. Kalender. "Breast Phantom Design for Dedicated Breast CT and Breast Tomosynthesis. IFMBE Proceedings World Congress on Medical Physics and Biomedical Engineering". In: *IFMBE Proceedings - World Congress 2009 on Medical Physics and Biomedical Engineering, September 7 - 12, 2009, Munich, Germany* 25.2 (2009), pp. 53–56.
- [184] M. Weigel, S. Vollmar, R. Brauweiler, M. Hupfer, T. Nowak, and W. A. Kalender. "Optimization of Spectra for Dedicated Breast CT with Respect to Image Quality and Dose." In: *Annual Meeting of Radiological Society of North America (RSNA) 2009, November 27 - December 4, 2009, Chicago, USA*. 2009. URL: http://rsna2009.rsna.org/search/event_display.cfm?em_id=8002365&printmode=Y&autoprint=N.
- [185] S. Vollmar and W. A. Kalender. "Dedicated breast CT at the same exposure level as two-view mammography: Influence of detector pixel size and focal spot size on image quality." In: *European Congress of Radiology (ECR) 2008, March 7 - 11, 2008, Vienna, Austria*. 2008. URL: <http://www.abstractsonline.com/viewer/viewAbstractPrintFriendly.asp?CKey={693F1D81-BCA6-44E4-9B70-1C9E66DB24B9}&SKey={A8E45AC8-292C-4068-BBEF-862964425CC1}&MKey={9AF35541-5128-444B-9D15-447022358A3F}&AKey={4C04E97A-9E50-40FE-8CFB-613AC033994F}>.
- [186] S. Vollmar, M. Weigel, and W. A. Kalender. "Dose Distributions and Image Quality in CT of the Breast as a Function of Projection Angle Range." In: *Annual Meeting of Radiological Society of North America (RSNA) 2008, November 30 - December 5, 2008, Chicago, USA*. 2008. URL: http://rsna2008.rsna.org/event_display.cfm?em_id=6007041.
- [187] S. Vollmar, P. Deak, and W. A. Kalender. "Reduction of Dose to the Female Breast in Chest CT: A Comparison of Standard Protocols, Tube Current Modulated, Partial, and Bismuth-shielded Scans." In: *Annual Meeting of Radiological Society of North America (RSNA) 2006, November 26 - 1 December, 2006, Chicago, USA*. 2006. URL: http://rsna2006.rsna.org/rsna2006/v2006/conference/event_display.cfm?id=66601&em_id=4429297.

Review publications naming the AB-CT nu:view breast CT system

- [188] F. R. Schwartz, A. D. Sodickson, P. J. Pickhardt, D. V. Sahani, M. H. Lev, and R. Gupta. "Photon-Counting CT: Technology, Current and Potential Future Clinical Applications, and Overview of Approved Systems and Those in Various Stages of Research and Development". In: *Radiology* 314.3 (Mar. 2025). ISSN: 1527-1315. DOI: [10.1148/radiol.240662](https://doi.org/10.1148/radiol.240662).
- [189] R. Schulz-Wendtland and T. Wacker. "Parametrische Bildgebung in der Mammadiagnostik: Computertomographie". In: *Die Radiologie* 65.3 (Dec. 2024), pp. 178–186. ISSN: 2731-7056. DOI: [10.1007/s00117-024-01392-z](https://doi.org/10.1007/s00117-024-01392-z).
- [190] A. Boss. "Innovationen in der Brustkrebsdiagnostik". In: *Schweizerische Ärztezeitung* (2023). DOI: [10.4414/saez.2023.21442](https://doi.org/10.4414/saez.2023.21442).



-
- [191] M. Lell and M. Kachelrieß. “Computed Tomography 2.0”. In: *Investigative Radiology* 58.8 (2023), pp. 587–601. DOI: [10.1097/rli.0000000000000995](https://doi.org/10.1097/rli.0000000000000995).
- [192] C. H. McCollough, K. Rajendran, F. I. Baffour, F. E. Diehn, A. Ferrero, K. N. Glazebrook, K. K. Horst, T. F. Johnson, S. Leng, A. Mileto, P. S. Rajiah, B. Schmidt, L. Yu, T. G. Flohr, and J. G. Fletcher. “Clinical applications of photon counting detector CT”. In: *European Radiology* 33.8 (2023), pp. 5309–5320. DOI: [10.1007/s00330-023-09596-y](https://doi.org/10.1007/s00330-023-09596-y).
- [193] Y. Wu, Z. Ye, J. Chen, L. Deng, and B. Song. “Photon Counting CT: Technical Principles, Clinical Applications, and Future Prospects”. In: *Academic Radiology* 30.10 (2023), pp. 2362–2382. DOI: [10.1016/j.acra.2023.05.029](https://doi.org/10.1016/j.acra.2023.05.029).
- [194] Y. Zhu, A. M. O’Connell, Y. Ma, A. Liu, H. Li, Y. Zhang, X. Zhang, and Z. Ye. “Dedicated breast CT: state of the art – Part I. Historical evolution and technical aspects”. In: *European Radiology* (2021). DOI: [10.1007/s00330-021-08179-z](https://doi.org/10.1007/s00330-021-08179-z).
- [195] Y. Zhu, A. M. O’Connell, Y. Ma, A. Liu, H. Li, Y. Zhang, X. Zhang, and Z. Ye. “Dedicated breast CT: state of the art – Part II. Clinical application and future outlook”. In: *European Radiology* (2021). DOI: [10.1007/s00330-021-08178-0](https://doi.org/10.1007/s00330-021-08178-0).
- [196] L. Heck and J. Herzen. “Recent advances in X-ray imaging of breast tissue: From two- to three-dimensional imaging”. In: *Physica Medica* 79 (2020), pp. 69–79. DOI: [10.1016/j.ejmp.2020.10.025](https://doi.org/10.1016/j.ejmp.2020.10.025).
- [197] A. Sarno, G. Mettivier, and P. Russo. “Dedicated breast computed tomography: Basic aspects”. In: *Med Phys* 42.6 (2015), pp. 2786–2804. URL: <https://www.ncbi.nlm.nih.gov/pubmed/26127031>.