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Automatic and efficient tomographic reconstruction algorithms

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Citation

Lagerwerf, M. J. (2021, October 5). *Automatic and efficient tomographic reconstruction algorithms*. Retrieved from <https://hdl.handle.net/1887/3214854>

Version: Publisher's Version

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Note: To cite this publication please use the final published version (if applicable).

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List of publications

Publications that are part of this dissertation:

- An Efficient Interpolation Approach for Exploring the Parameter Space of Regularized Tomography Algorithms. *MJ Lagerwerf, WJ Palenstijn, F Bleichrodt, KJ Batenburg*. Fundamenta Informaticae (Volume: 172), number 2, pp. 143–167, 2020.
- Automated FDK-Filter Selection for Cone-Beam CT in Research Environments. *MJ Lagerwerf, WJ Palenstijn, H Kohr, KJ Batenburg*. IEEE Transactions on Computational Imaging (Volume: 6), pp. 739–748, 2020.
- A computationally efficient reconstruction algorithm for circular cone-beam computed tomography using shallow neural networks. *MJ Lagerwerf, DM Pelt, WJ Palenstijn, KJ Batenburg*. Journal of Imaging, Early access, 2020.
- Noise2Filter: fast, self-supervised learning and real-time reconstruction for 3D Computed Tomography. *MJ Lagerwerf, AA Hendriksen, JW Buurlage, KJ Batenburg*. Machine Learning: Science and Technology (Volume 2), number 1, 2020.

Publications that are not part of this dissertation:

- A framework for directional and higher-order reconstruction in photoacoustic tomography. *YE Boink, MJ Lagerwerf, W Steenbergen, SA van Gils, S Srirang, C Brune*. Physics in Medicine & Biology (Volume: 63), number 4, pp. 045018, 2018.
- Directional sinogram inpainting for limited angle tomography. *R Tovey, M Benning, C Brune, MJ Lagerwerf, SM Collins, RK Leary, PA Midgley, CB Schönlieb*. Inverse problems (Volume: 35), number 2, pp. 024004, 2019.

