

1. Bornefalk, H. and M. Danielsson, *Photon-counting spectral computed tomography using silicon strip detectors: a feasibility study*. Phys Med Biol, 2010. **55**(7): p. 1999-2022.
2. Bornefalk, H., et al., *Design considerations to overcome cross talk in a photon counting silicon strip detector for computed tomography*. Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010. **621**(1-3): p. 371-378.
3. Xu, C., et al., *Preliminary evaluation of a silicon strip detector for photon-counting spectral CT*. Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012. **677**: p. 45-51.
4. Yveborg, M., M. Danielsson, and H. Bornefalk, *Performance evaluation of a sub-millimetre spectrally resolved CT system on high- and low-frequency imaging tasks: a simulation*. Phys Med Biol, 2012. **57**(8): p. 2373-91.
5. Baek, J., A.R. Pineda, and N.J. Pelc, *To bin or not to bin? The effect of CT system limiting resolution on noise and detectability*. Phys Med Biol, 2013. **58**(5): p. 1433-46.
6. Xu, C., et al., *Energy resolution of a segmented silicon strip detector for photon-counting spectral CT*. Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013. **715**: p. 11-17.
7. Liu, X., et al., *A Silicon-Strip Detector for Photon-Counting Spectral CT: Energy Resolution From 40 keV to 120 keV*. IEEE Transactions on Nuclear Science, 2014. **61**(3): p. 1099-1105.
8. Persson, M., *Energy-resolved CT imaging with a photoncounting silicon-strip detector*. Physics in Medicine and Biology, 2014.
9. Bornefalk, H., M. Persson, and M. Danielsson, *Allowable forward model misspecification for accurate basis decomposition in a silicon detector based spectral CT*. IEEE Trans Med Imaging, 2015. **34**(3): p. 788-95.
10. Chen, H., et al., *Optimization of beam quality for photon-counting spectral computed tomography in head imaging: simulation study*. J Med Imaging (Bellingham), 2015. **2**(4): p. 043504.
11. Liu, X., et al., *Spectral response model for a multibin photon-counting spectral computed tomography detector and its applications*. J Med Imaging (Bellingham), 2015. **2**(3): p. 033502.
12. Chen, H., M. Danielsson, and C. Xu, *Size-dependent scanning parameters (kVp and mAs) for photon-counting spectral CT system in pediatric imaging: simulation study*. Phys Med Biol, 2016. **61**(11): p. 4105-26.
13. Persson, M., et al., *Upper limits of the photon fluence rate on CT detectors: Case study on a commercial scanner*. Med Phys, 2016. **43**(7): p. 4398.
14. Rajbhandary, P., *Comparison Weighted Energy Bin vs Weighted Basis Material CT Images*. Proc. 4th Intl. Mtg. on Image Formation in X-ray, 2016.
15. Hsieh, S.S., P.L. Rajbhandary, and N.J. Pelc, *Spectral resolution and high-flux capability tradeoffs in CdTe detectors for clinical CT*. Med Phys, 2018. **45**(4): p. 1433-1443.
16. Persson, M., et al., *Subpixel x-ray imaging with an energy-resolving detector*. J Med Imaging (Bellingham), 2018. **5**(1): p. 013507.
17. Persson, M., P.L. Rajbhandary, and N.J. Pelc, *A framework for performance characterization of energy-resolving photon-counting detectors*. Med Phys, 2018. **45**(11): p. 4897-4915.
18. Silva, d., *Resolution characterization of a silicon-based, photon-counting computed tomography prototype capable of patient scanning*. Journal of medical imaging, 2019.
19. Gronberg, F., et al., *Feasibility of unconstrained three-material decomposition: imaging an excised human heart using a prototype silicon photon-counting CT detector*. Eur Radiol, 2020. **30**(11): p. 5904-5912.
20. Persson, M., A. Wang, and N.J. Pelc, *Detective quantum efficiency of photon-counting CdTe and Si detectors for computed tomography: a simulation study*. J Med Imaging (Bellingham), 2020. **7**(4): p. 043501.
21. Persson, W., Pelc, *Detective quantum efficiency of photon-counting CdTe and Si detectors for computed tomography: a simulation study*. arxiv, 2020.
22. Rajbhandary, P.L., M. Persson, and N.J. Pelc, *Detective efficiency of photon counting detectors with*

- spectral degradation and crosstalk*. Med Phys, 2020. **47**(1): p. 27-36.
23. Sundberg, C., et al., *Silicon photon-counting detector for full-field CT using an ASIC with adjustable shaping time*. J Med Imaging (Bellingham), 2020. **7**(5): p. 053503.
 24. Zheng, Y., et al., *Robustness of optimal energy thresholds in photon-counting spectral CT*. Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020. **953**.
 25. Danielsson, M., M. Persson, and M. Sjolín, *Photon-counting x-ray detectors for CT*. Phys Med Biol, 2021. **66**(3): p. 03TR01.
 26. Eguizabal, A., et al., *A deep learning post-processing to enhance the maximum likelihood estimate of three material decomposition in photon counting spectral CT*, in *Medical Imaging 2021: Physics of Medical Imaging*. 2021.
 27. Strom, *Photon-Counting CT Reconstruction with a Learned Forward Operator*. IEEE transactions on computational imaging, 2021.
 28. Sundberg, C., et al., *Compton coincidence in silicon photon-counting CT detectors*, in *Medical Imaging 2021: Physics of Medical Imaging*. 2021.
 29. Sundberg, C., et al., *1-mm spatial resolution in silicon photon-counting CT detectors*. J Med Imaging (Bellingham), 2021. **8**(6): p. 063501.
 30. Wang, A.S. and N.J. Pelc, *Spectral Photon Counting CT: Imaging Algorithms and Performance Assessment*. IEEE Trans Radiat Plasma Med Sci, 2021. **5**(4): p. 453-464.
 31. Fredrik Gronberg, Z.Y., Jonathan Maltz, Norbert Pelc, Mats Persson, *The effects of intra-detector Compton scatter on zero-frequency DQE for photon-counting CT using edge-on-irradiated silicon detectors*. Arxiv, 2022.
 32. Sharma, S., et al., *Can photon-counting CT improve estimation accuracy of morphological radiomics features? A simulation study for assessing the quantitative benefits from improved spatial resolution in deep silicon-based photon-counting CT*. Acad Radiol, 2022.
 33. Szczykutowicz, T.P., et al., *Photon count rates estimated from 1,980 clinical CT scans*. Med Phys, 2022.
 34. Verelst et al., *Stent appearance in a novel silicon-based photon-counting CT prototype: ex vivo phantom study in head-to-head comparison with conventional energy-integrating CT*. European Radiology Experimental 2023]
 35. *CT Number Accuracy and Association With Object Size: A Phantom Study Comparing Energy-Integrating Detector CT and Deep Silicon Photon-Counting Detector CT 2023*
 36. *Stent appearance in a novel silicon-based photon-counting CT prototype: ex vivo phantom study in head-to-head comparison with conventional energy-integrating CT | European Radiology Experimental | Full Text (springeropen.com)*
 37. Holmes, T.W., et al., *Ultra-high-resolution spectral silicon-based photon-counting detector CT for coronary CT angiography: Initial results in a dynamic phantom*. J Cardiovasc Comput Tomogr, 2023.
 38. Almqvist, H., et al., *Initial Clinical Images From a Second-Generation Prototype Silicon-Based Photon-Counting Computed Tomography System*. Academic Radiology, 2023.
 39. Schmidt, T.G., et al., *Constrained one-step material decomposition reconstruction of head CT data from a silicon photon-counting prototype*. Med Phys, 2023.