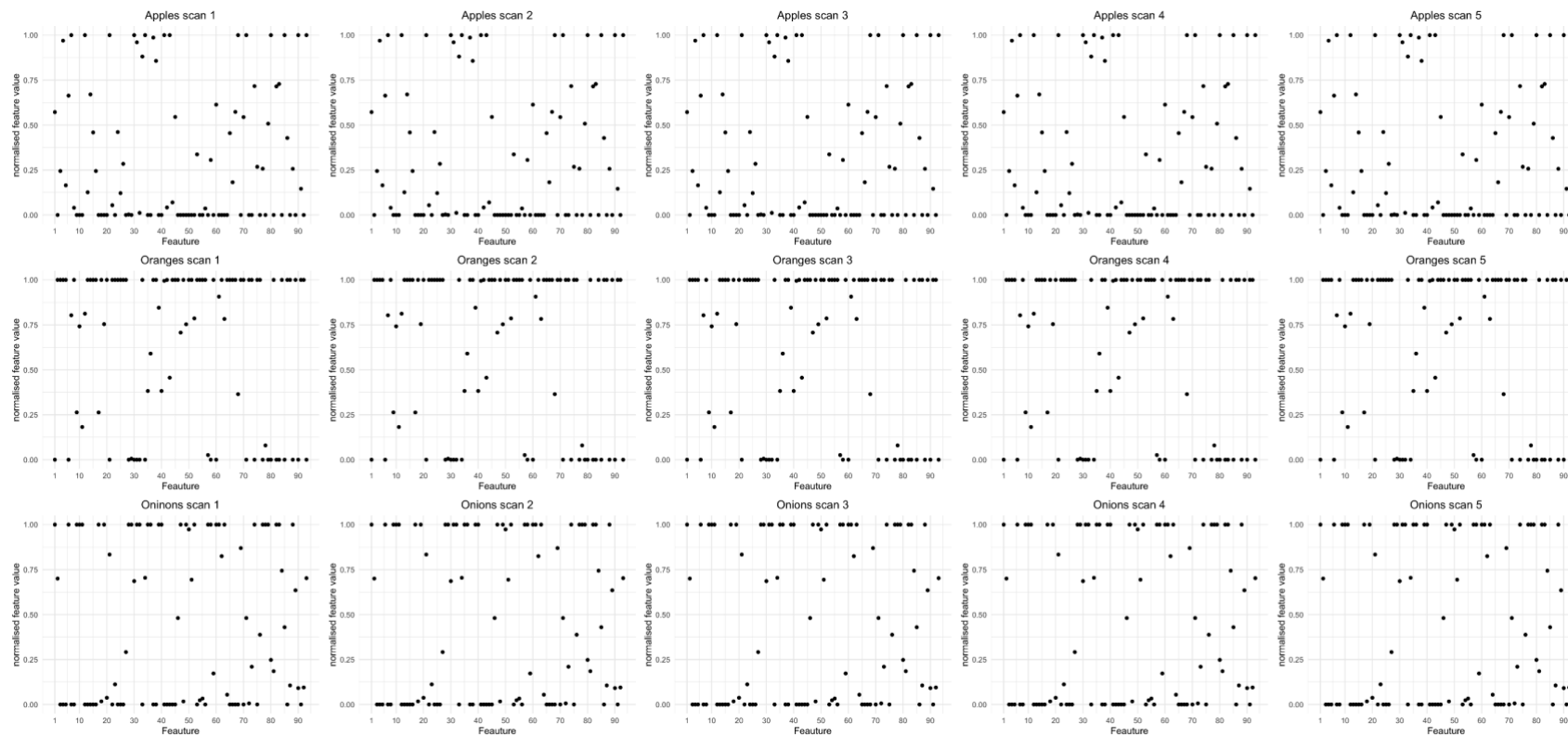


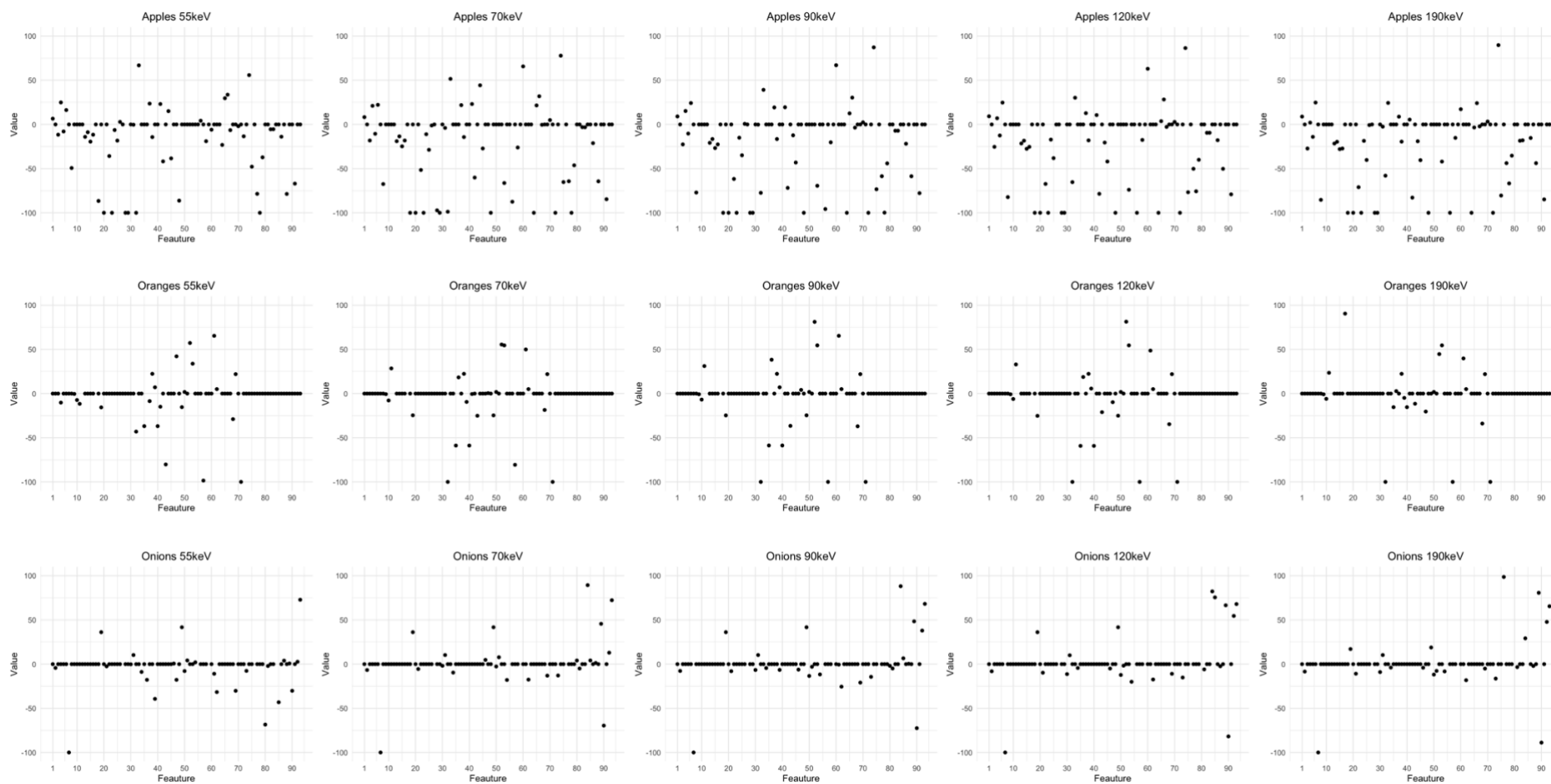
Photon-counting detector CT-based virtual monoenergetic reconstructions: repeatability and reproducibility of radiomics features of an organic phantom and human myocardium

ELECTRONIC SUPPLEMENTARY MATERIAL

Suppl. Figure 1: Scatter plot of all 93 normalized radiomics features for the five repeated scans at 70 keV.



Suppl. Figure 2: Scatter plot of all 93 normalized radiomics features deviation compared to the related normalized radiomics features at 40 keV between -100 and 100 %.



Suppl. Table 1: ICC of 12 previous described stable features between the different VMIs (40, 55, 70, 90, 120 and 190 keV)

Apples															
	40 vs 55	40 vs 70	40 vs 90	40 vs 120	40 vs 190	55 vs 70	55 vs 90	55 vs 120	55 vs 190	70 vs 90	70 vs 120	70 vs 190	90 vs 120	90 vs 190	120 vs 190
firstorder_Entropy	0.77 8	0.55 5	0.38 3	0.36 8	0.32 8	0.94 4	0.86 6	0.83 5	0.81 0	0.98 3	0.96 7	0.95 4	0.99 7	0.99 2	0.999
glcm_Differenceentropy	0.98 9	0.97 9	0.96 8	0.96 7	0.96 1	0.99 6	0.98 9	0.98 4	0.97 7	0.99 7	0.99 4	0.99 0	0.99 9	0.99 6	0.999
glcm_Jointentropy	0.78 1	0.61 0	0.50 6	0.49 5	0.45 6	0.94 8	0.87 7	0.84 1	0.80 6	0.98 2	0.96 2	0.94 2	0.99 6	0.98 7	0.998
gldm_DependenceEntropy	0.79 5	0.29 0	/	/	/	0.65 3	0.13 3	/	0.19 1	0.93 0	0.89 0	0.92 3	0.98 6	0.98 5	0.992
gldm_DependenceNonUniformity	0.92 6	0.46 7	0.23 5	/	/	0.48 4	0.11 5	/	/	0.39 9	0.08 4	0.16 4	0.92 7	0.97 2	0.986
gldm_DependenceNonUniformityNormalized	0.86 2	/	/	/	/	/	/	/	/	/	/	/	0.91 5	0.96 5	0.984
gldm_GrayLevelNonUniformity	0.74 0	0.22 5	/	/	/	0.83 8	0.58 1	0.48 5	0.40 6	0.94 9	0.91 1	0.87 8	0.99 3	0.98 3	0.997
glrlm_GrayLevelNonUniformity	0.73 3	0.22 3	/	/	/	0.73 7	0.39 3	0.27 9	0.26 4	0.93 7	0.88 8	0.87 0	0.98 8	0.97 8	0.998

glrlm_RunLengthNonUniformity	0.91 8	0.69 5	0.50 0	0.21 0	0.43 7	0.91 9	0.76 8	0.60 7	0.75 1	0.90 7	0.83 5	0.90 7	0.98 6	0.99 3	0.981
glrlm_RunLengthNonUniformityNormalized	0.78 2	0.32 1	/	/	/	0.65 3	0.17 9	/	0.06 5	0.87 9	0.75 6	0.85 0	0.97 7	0.99 0	0.977
glrlm_ShortRunEmphasis	0.70 1	0.28 8	/	/	/	0.51 5	/	/	/	0.89 9	0.78 8	0.89 6	0.97 9	0.98 8	0.970
ngtdm_Coarseness	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
<i>Total</i>	<i>0.75</i> <i>0</i>	<i>0.42</i> <i>3</i>	<i>0.43</i> <i>2</i>	<i>0.40</i> <i>8</i>	<i>0.43</i> <i>6</i>	<i>0.69</i> <i>9</i>	<i>0.49</i> <i>0</i>	<i>0.57</i> <i>6</i>	<i>0.47</i> <i>4</i>	<i>0.80</i> <i>6</i>	<i>0.73</i> <i>4</i>	<i>0.76</i> <i>1</i>	<i>0.89</i> <i>5</i>	<i>0.90</i> <i>2</i>	<i>0.907</i>
Oranges															
	40 vs 55	40 vs 70	40 vs 90	40 vs 120	40 vs 190	55 vs 70	55 vs 90	55 vs 120	55 vs 190	70 vs 90	70 vs 120	70 vs 190	90 vs 120	90 vs 190	120 vs 190
firstorder_Entropy	0.68 5	0.80 0	0.46 8	0.76 9	0.77 7	0.82 8	0.74 5	0.72 3	0.76 3	0.90 0	0.94 8	0.95 9	0.94 6	0.94 3	0.996
glcm_Differenceentropy	0.96 5	0.98 9	0.81 2	0.74 5	0.83 0	0.96 5	0.90 2	0.85 3	0.91 1	0.86 9	0.80 9	0.88 4	0.99 4	0.98 8	0.975
glcm_Jointentropy	0.80 2	0.83 7	0.36 1	0.65 0	0.70 9	0.80 7	0.66 9	0.67 2	0.78 6	0.61 7	0.85 5	0.93 9	0.92 4	0.87 7	0.963
gldm_DependenceEntropy	0.71 2	0.34 7	/	/	/	0.13 1	0.55 3	0.52 3	0.61 7	0.35 7	0.51 1	0.62 3	0.98 2	0.95 6	0.990
gldm_DependenceNonUniformity	0.77 3	0.55 6	0.48 8	0.49 6	0.53 6	0.42 0	0.62 3	0.61 1	0.65 3	0.81 0	0.78 5	0.82 3	0.99 8	0.99 7	0.997

gldm_DependenceNonUniformityNormalized	0.658	0.315	0.316	0.328	0.370	0.125	0.498	0.479	0.529	0.759	0.725	0.772	0.997	0.997	0.996
gldm_GrayLevelNonUniformity	/	0.076	/	0.416	0.688	0.056	0.769	0.163	/	/	/	0.399	0.335	/	0.901
glrlm_GrayLevelNonUniformity	0.221	/	0.322	0.303	0.310	/	0.136	0.040	0.059	0.740	0.723	0.835	0.996	0.988	0.983
glrlm_RunLengthNonUniformity	0.925	0.886	0.896	0.956	0.982	0.822	0.855	0.878	0.927	0.991	0.974	0.949	0.985	0.964	0.992
glrlm_RunLengthNonUniformityNormalized	0.783	/	0.007	0.214	0.256	/	0.063	0.131	0.221	0.883	0.761	0.773	0.981	0.975	0.989
glrlm_ShortRunEmphasis	0.810	/	0.073	0.296	0.351	/	0.114	0.202	0.297	0.887	0.772	0.770	0.982	0.974	0.992
ngtdm_Coarseness	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Total	0.667	0.534	0.374	0.470	0.528	0.462	0.494	0.440	0.524	0.710	0.715	0.727	0.843	0.878	0.898
Onions															
	40 vs 55	40 vs 70	40 vs 90	40 vs 120	40 vs 190	55 vs 70	55 vs 90	55 vs 120	55 vs 190	70 vs 90	70 vs 120	70 vs 190	90 vs 120	90 vs 190	120 vs 190
firstorder_Entropy	0.896	0.906	0.914	0.353	/	0.963	0.796	0.348	/	0.901	0.551	/	0.743	/	0.767
glcm_Differenceentropy	0.998	0.996	0.995	0.989	0.989	0.999	0.997	0.991	0.991	0.998	0.996	0.996	0.997	0.997	1.000

glcm_Jointentropy	0.78 5	0.81 1	0.92 7	0.66 7	0.15 8	0.96 1	0.82 7	0.43 4	/	0.91 3	0.65 4	/	0.76 5	/	0.817
gldm_DependenceEntropy	0.68 5	0.83 0	0.82 2	0.71 3	0.28 6	0.94 0	0.67 3	0.29 8	/	0.85 8	0.58 5	/	0.79 2	0.01 2	0.803
gldm_DependenceNonUniformity	0.85 1	/	0.43 1	0.54 0	/	/	0.86 4	0.85 6	/	0.66 6	/	0.78 7	0.85 8	0.45 3	/
gldm_DependenceNonUniformityNormalized	0.89 7	/	0.58 7	0.73 0	/	/	0.86 8	0.89 9	0.06 1	/	/	/	0.84 6	/	0.302
gldm_GrayLevelNonUniformity	0.54 0	0.59 1	0.24 4	0.28 5	0.22 7	0.16 1	/	/	/	0.75 0	0.74 0	0.67 3	0.99 6	0.98 4	0.993
glrlm_GrayLevelNonUniformity	0.39 6	0.30 0	/	/	0.85 8	/	/	/	/	/	/	/	0.76 2	0.59 9	0.958
glrlm_RunLengthNonUniformity	0.90 2	0.95 3	0.85 2	0.69 4	0.59 5	0.93 8	0.99 2	0.92 5	0.91 9	0.93 0	0.87 6	0.78 4	0.96 7	0.95 8	0.976
glrlm_RunLengthNonUniformityNormalized	0.73 6	0.88 6	0.77 7	0.00 3	/	0.85 0	0.94 9	0.61 1	0.81 7	0.90 6	0.47 3	0.54 6	0.77 5	0.86 0	0.912
glrlm_ShortRunEmphasis	0.76 5	0.90 9	0.76 7	/	0.15 0	0.87 6	0.95 3	0.64 7	0.85 3	0.91 0	0.48 5	0.64 7	0.80 0	0.90 0	0.928
ngtdm_Coarseness	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Total	0.70 4	0.71 8	0.66 5	0.49 7	0.40 8	0.74 3	0.79 2	0.60 1	0.60 7	0.78 3	0.59 6	0.63 3	0.77 5	0.64 0	0.769

Bold type = ICC >0,75; / = ICC could not be calculated due to negative covariance of factors