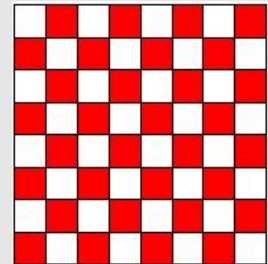
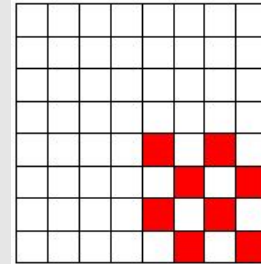
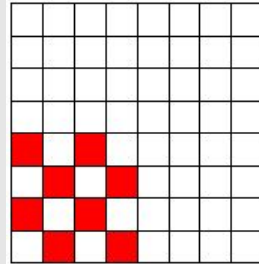
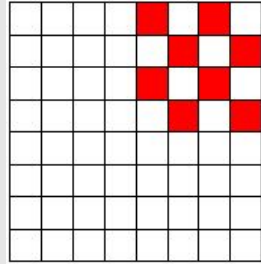
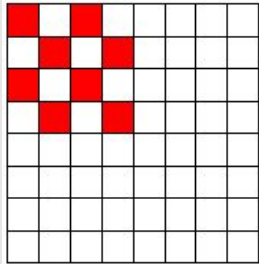


Validation

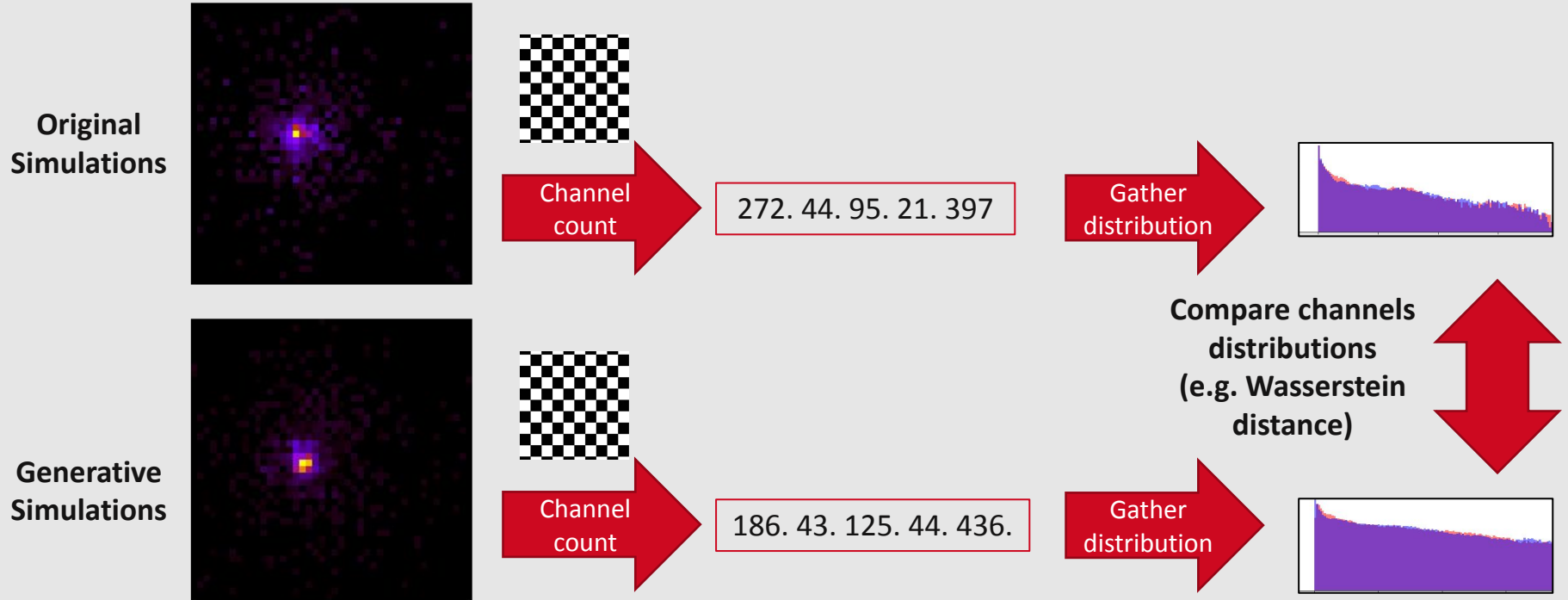
We started with validation on the basis of standard metrics (MSE, differences between placement of central hit for generated and original simulations), but simulations are too random

Statistical comparison of output values:

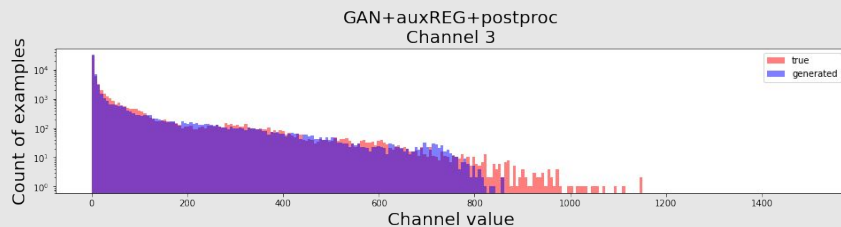
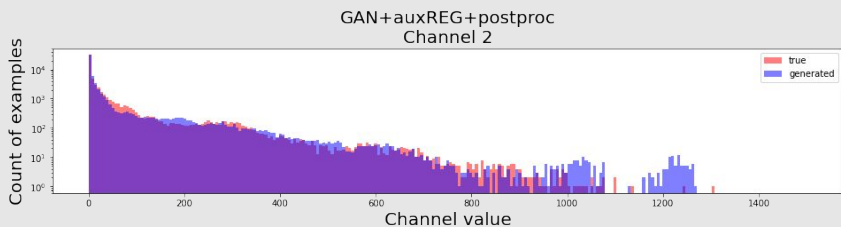
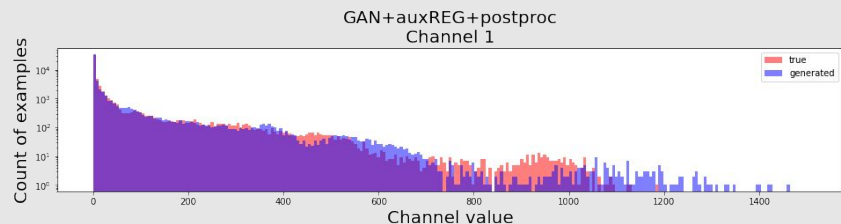
- 5 Channel values are calculated by summing pixels (photons) that are located at the specific fields of a checkerboard grid



Calculation of channels



Channel comparision - results



Model	WS MEAN	WS CH1	WS CH2	WS CH3	WS CH4	WS CH5
GAN + auxREG + postproc	5.16	2.71	4.63	4.89	6.71	8.59
end2end SAE	7.96	7.46	7.19	7.3	8.98	8.88
Upper bound	1.26	1.72	0.41	1.46	1.05	1.68