

# Noise transfer for unsupervised domain adaptation of retinal OCT images - Supplemental material

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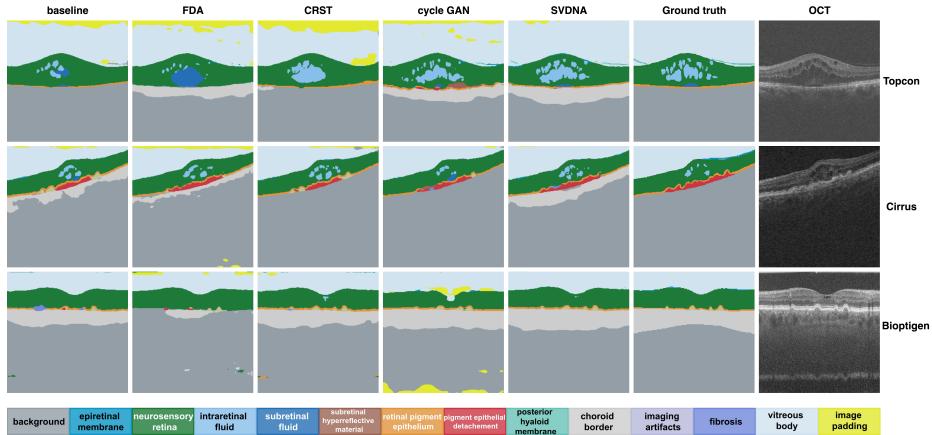
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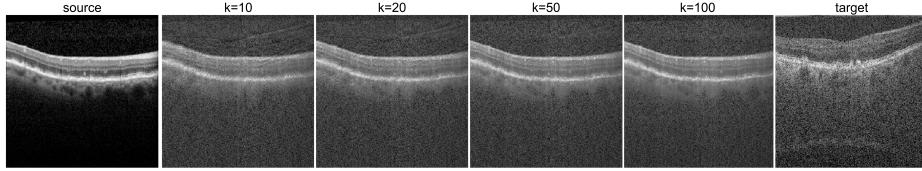
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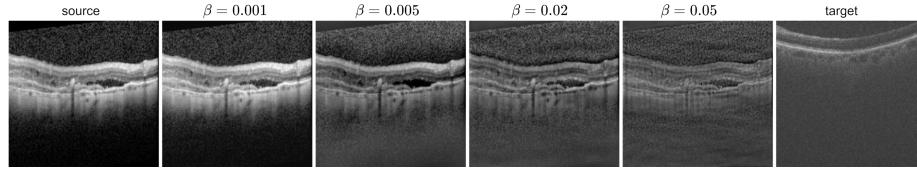
**Fig. 1.** Qualitative comparison between methods. While most methods improve over the baseline segmentation, SVDNA segmentation are most accurate.

**Table 1.** Ablation study on Topcon dataset (average over 5-fold cross-validation)

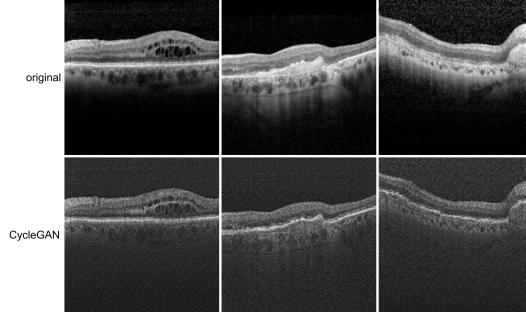
model	IRF	SRF	PED	mean
baseline	0.26	0.26	0.56	0.36
Noise transfer only	0.22	0.23	0.69	0.38
Histogram matching only	0.70	0.47	0.65	0.60
<b>SVDNA (Noise transfer + histogram matching)</b>	<b>0.70</b>	<b>0.50</b>	<b>0.70</b>	<b>0.63</b>



**Fig. 2.** SVDNA study of the influence of the hyperparameter  $k$ . Note the slight artifacts for  $k = 10$  where outlines of the target image are slightly visible. For high values of  $k$  the image suffers from slight blurring as can be seen for  $k = 100$ .



**Fig. 3.** Style transfer of the Fourier Domain Adaptation method. Low values of  $\beta$  achieve no style transfer, while larger values introduce artifacts.



**Fig. 4.** Recurring problems with CycleGAN: note the distorted brightness of tissue in the second and third image compared to overall good translation in the first example.

**Table 2.** Best values of parameters determined by grid search over listed parameters. Parameters used for SVDNA training can be inferred from the code repository.

method	learning rate	nr rounds	nr epochs	kc policy	kc value	init target portion	max target portion	target step	init source portion
Self-training	0.00025	7	15	cb	conf	0.1	0.5	0.08	1

method	learning rate	nr epochs	nr epochs decay	beta1	gan mode	pool size
CycleGAN	0.0002	20	20	0.5	lsgan	50

method	learning rate	beta	nr epochs
Fourier Domain Adaptation	0.001	0.02	60