

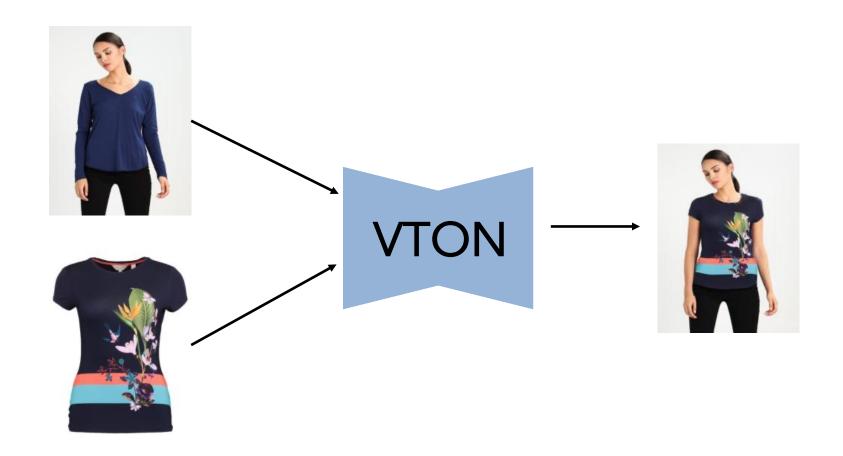


## Style-Based Global Appearance Flow for Virtual Try-On

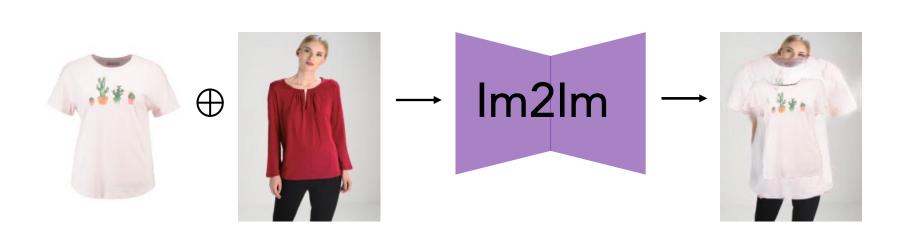


### Sen He, Yi-Zhe Song, Tao Xiang

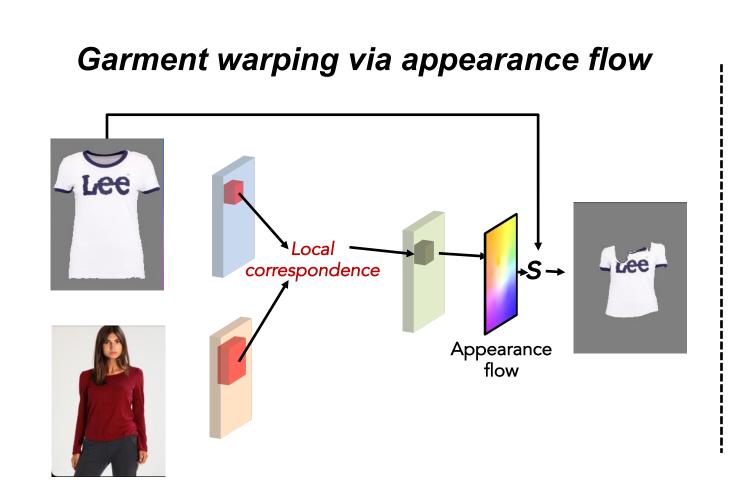
### Image-based Virtual Try-on



Main Challenge - Misalignment

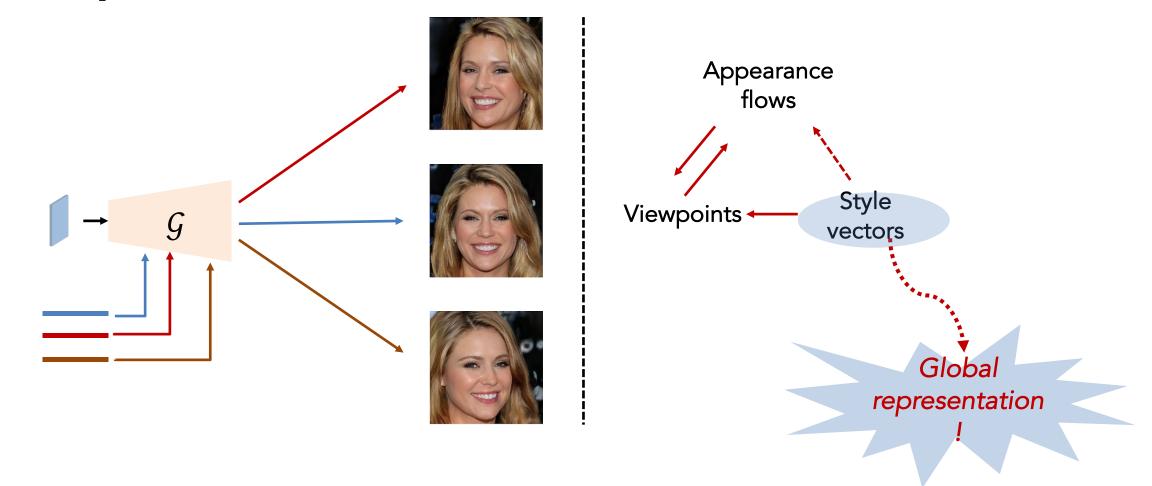


Existing SOTA Methods and Their Limitations

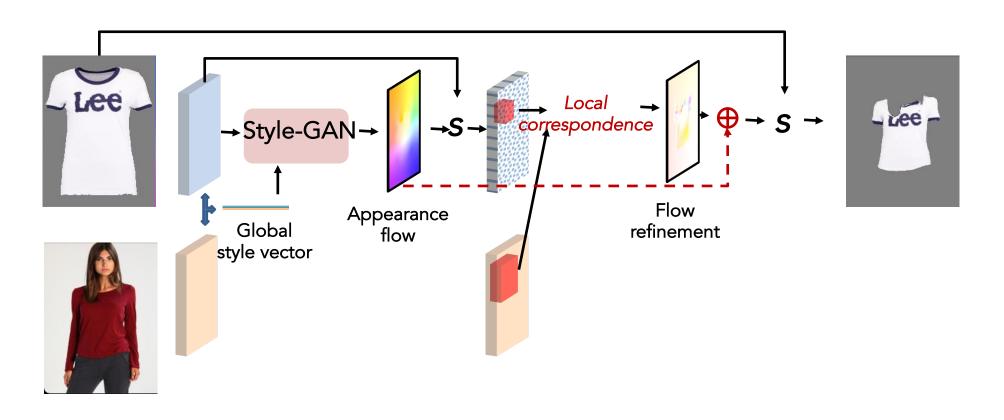




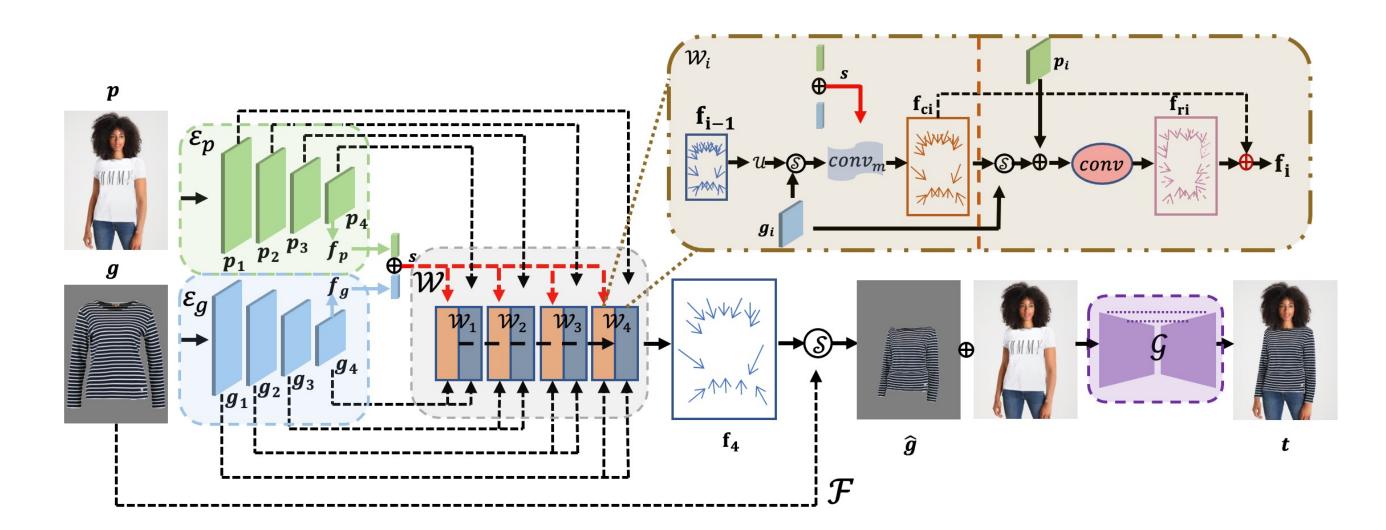
# Our Motivation – Style-GAN based image geometric manipulation



Our Method - Style-based appearance flow estimation



Our Model



#### Qualitative Results



#### Quantitative Results

Methods	Warping	Parser	SSIM ↑	FID↓
VTON [14]	TPS	Y	0.74	55.71
CP-VTON [37]	TPS	$\mathbf{Y}$	0.72	24.45
CP-VTON++ [25]	TPS	$\mathbf{Y}$	0.75	21.04
Cloth-flow [13]	$\mathbf{AF}$	$\mathbf{Y}$	0.84	14.43
ACGPN [41]	TPS	$\mathbf{Y}$	0.84	16.64
DCTON [9]	TPS	$\mathbf{Y}$	0.83	14.82
PF-AFN [10]	$\mathbf{AF}$	N	0.89	10.09
Zflow [5]	$\mathbf{AF}$	$\mathbf{Y}$	0.88	15.17
Cloth-flow* [13]	AF	N	0.89	10.73
Ours	AF	N	0.91	8.89

Table 1. Quantitative results of different models on VITON. Warping represents the warping methods used in different models. Parser indicates whether human parser is used in the model during inference. TPS: Thin Plate Spline. AF: Appearance Flow. \*: re-trained with parser free training paradigm.