

Introduction

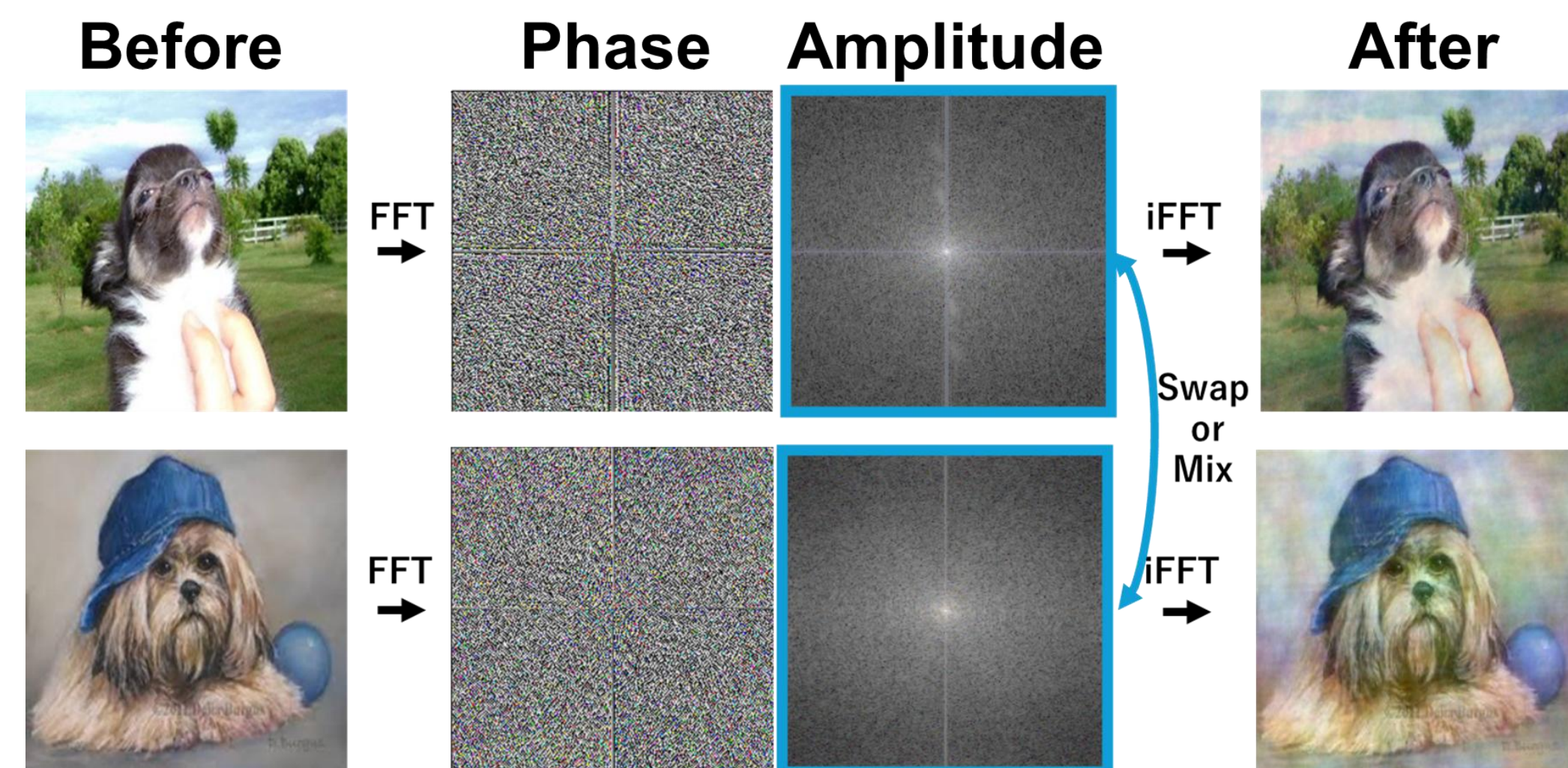
Single Source Domain Generalization Test



Related Work

FACT@CVPR2021

- Image transformation methods for domain generalization
- The amplitude contains domain-specific information
- Mix the amplitude to reduce domain-specific information



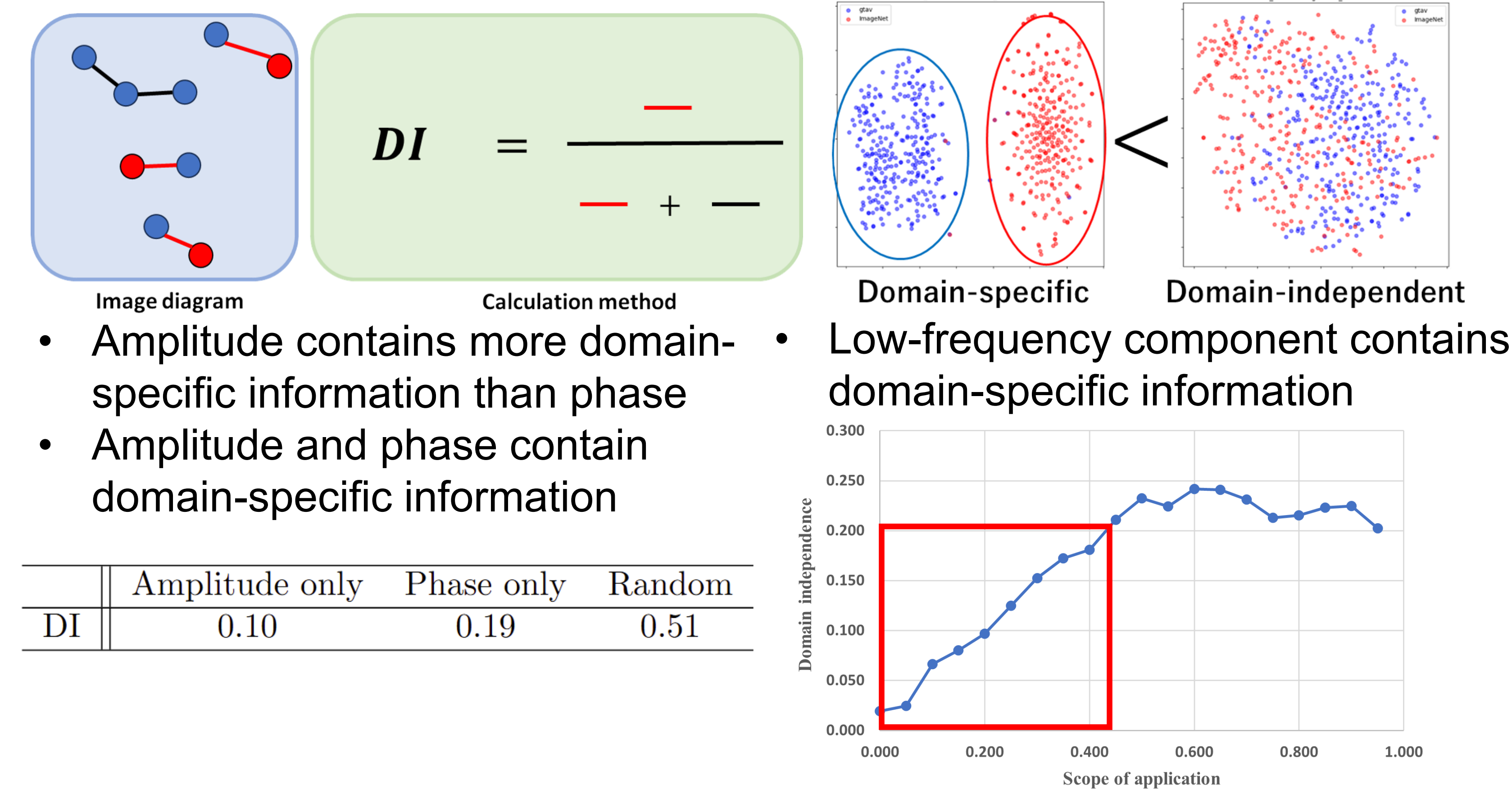
Problem

- The phase component remains unchanged
- Multiple domains are needed

Method

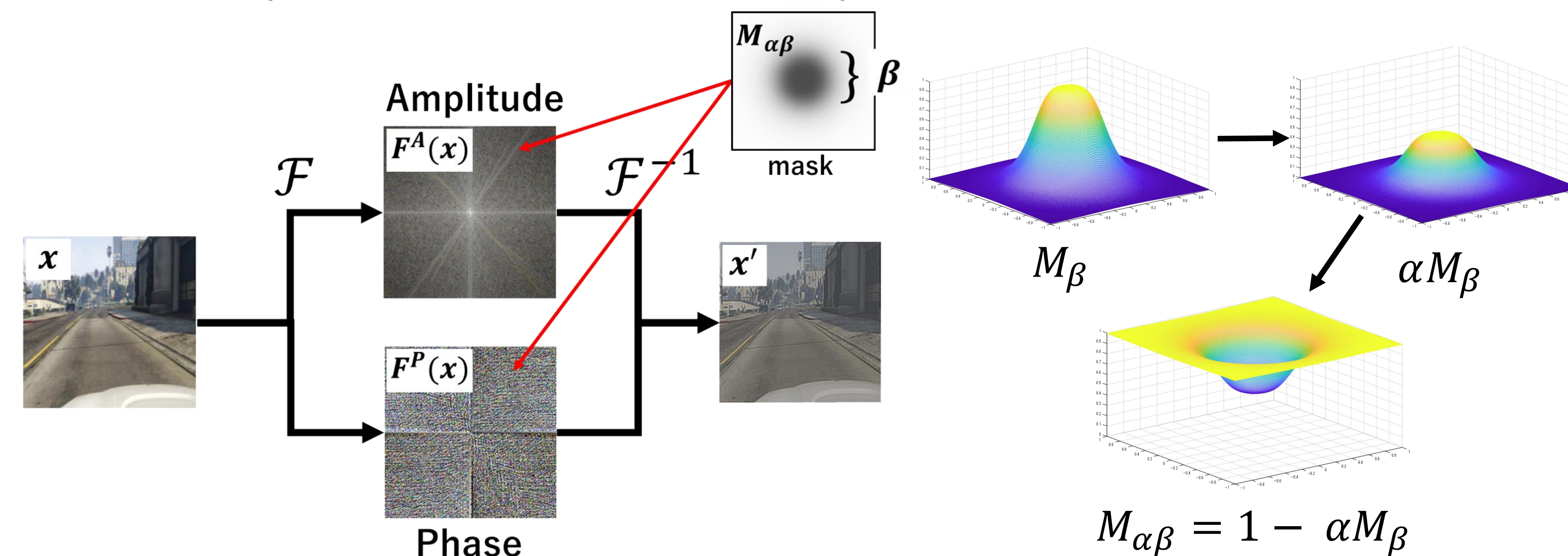
Domain Independence (DI)

- The range of domain-specific information can be identified
- The degree of domain dependence can be quantitatively evaluated



Attenuation of Domain-Specific Information (ADSI)

- Image transformation is possible with a single domain
- Apply a mask to the low-frequency components of amplitude and phase



Experiments

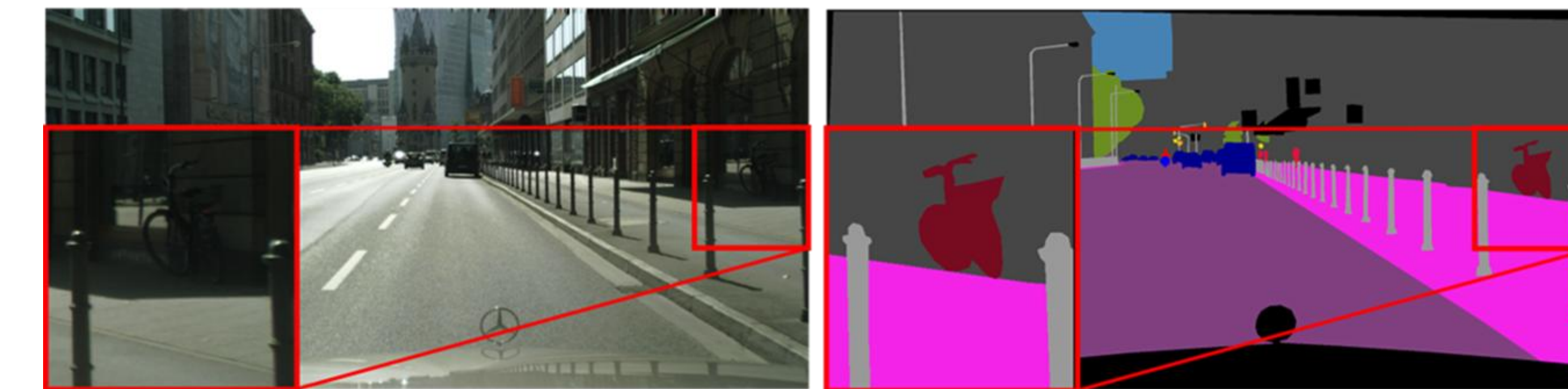
Comparison with state-of-the-art methods

Baseline: Rein (DINOv2-L)

Method	Backbone	GTA5-to-Real			
		Citys	BDD	Map	Avg.
IBN	RN50	33.61	32.67	37.43	34.57
ISW	RN50	36.40	35.79	40.30	37.50
WildNet	RN101	44.62	38.35	46.09	43.02
DAFormer	MiT-B5	52.88	47.37	54.34	51.53
HRDA	MiT-B5	57.45	49.10	59.92	55.49
VLTSeg	EVA02-CLIP-L	65.30	58.30	66.0	63.20
Rein@CVPR24	CLIP-L	58.35	54.75	59.91	57.67
Rein	SAM-H	59.66	50.03	61.14	54.94
Rein	EVA02-CLIP-L	63.23	59.63	63.81	62.22
Rein (baseline)	DINOv2-L@ICLR25	66.12	60.51	65.90	64.18
Rein + RaffesSDG	DINOv2-L	61.78	58.98	62.72	61.16
Rein + FACT	DINOv2-L	64.75	60.27	64.66	63.23
Rein + ADSI	DINOv2-L	67.75	61.38	67.59	65.57

Input

Ground Truth



Rein

Ours

