

# CANet: A Context-Aware Network for Shadow Removal

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# Background & problem



1) 在Server Manager中，选择Web Server(I  
2) 导航到Web Server | Security，并选择Wi  
(4) 在Actions窗格中，单击Enable来启用W  
(5) 在Authentication页面中，选择Anonym  
(6) 在Actions窗格中，单击Disable来禁止

### 2. IIS Express

运行在IIS Express下时，需要完成下面的步

- (1) 在Solution Explorer中选择项目。
- (2) 如果Properties窗口没有打开，就按F4键
- (3) 在Properties窗格中设置如下选项：
  - 将 Anonymous Authentication 设置为
  - 将 Windows Authentication 设置为 E

### 3. 整个控制器的安全性

前面的例子已经展示了如何将Authorize特性



# Background & problem

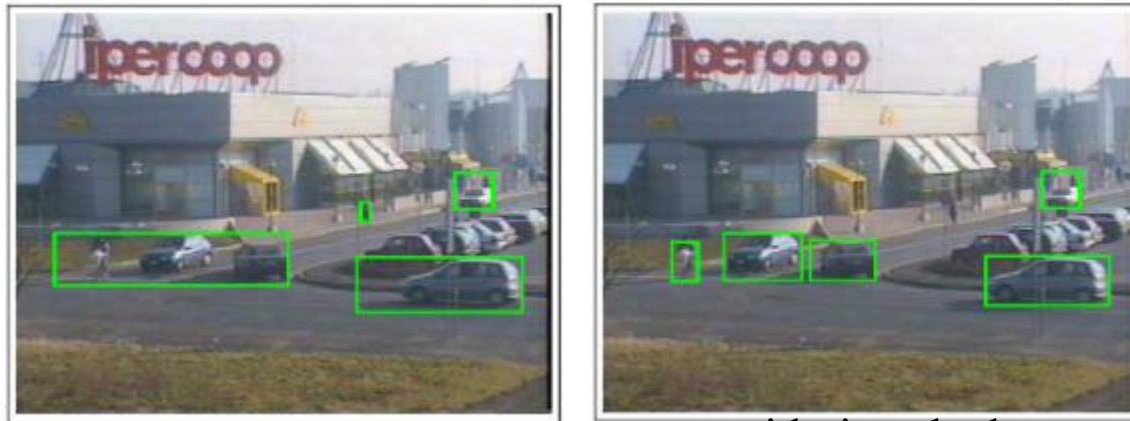
Input Video



Moving object  
Detection



Object detection



Without considering shadow

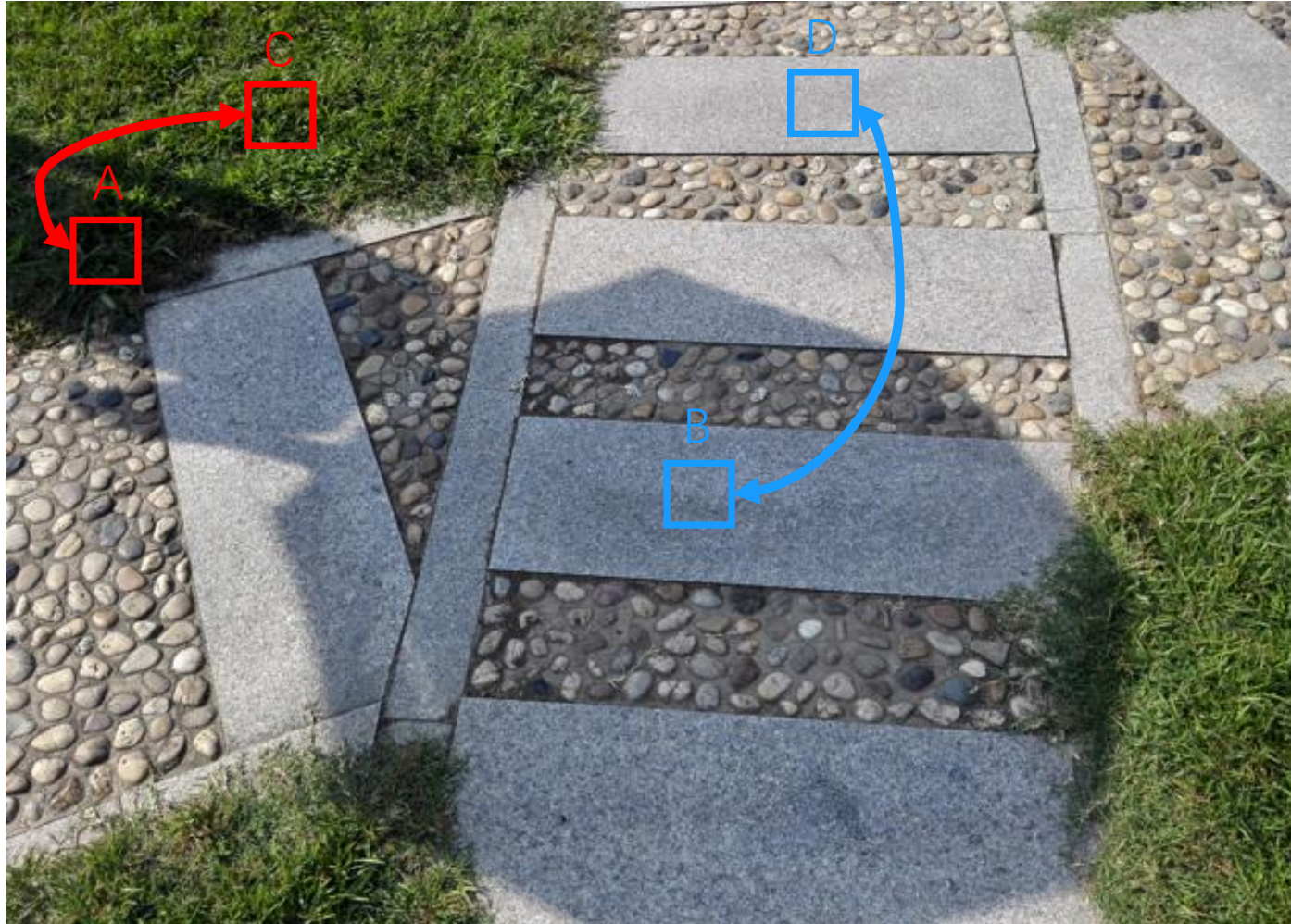
considering shadow

S. Nadimi et al. Physical models for moving shadow and object detection in video. TPAMI, 2004.

R. Cucchiara et al. Improving shadow suppression in moving object detection with hsv color information. ITSP, 2001.

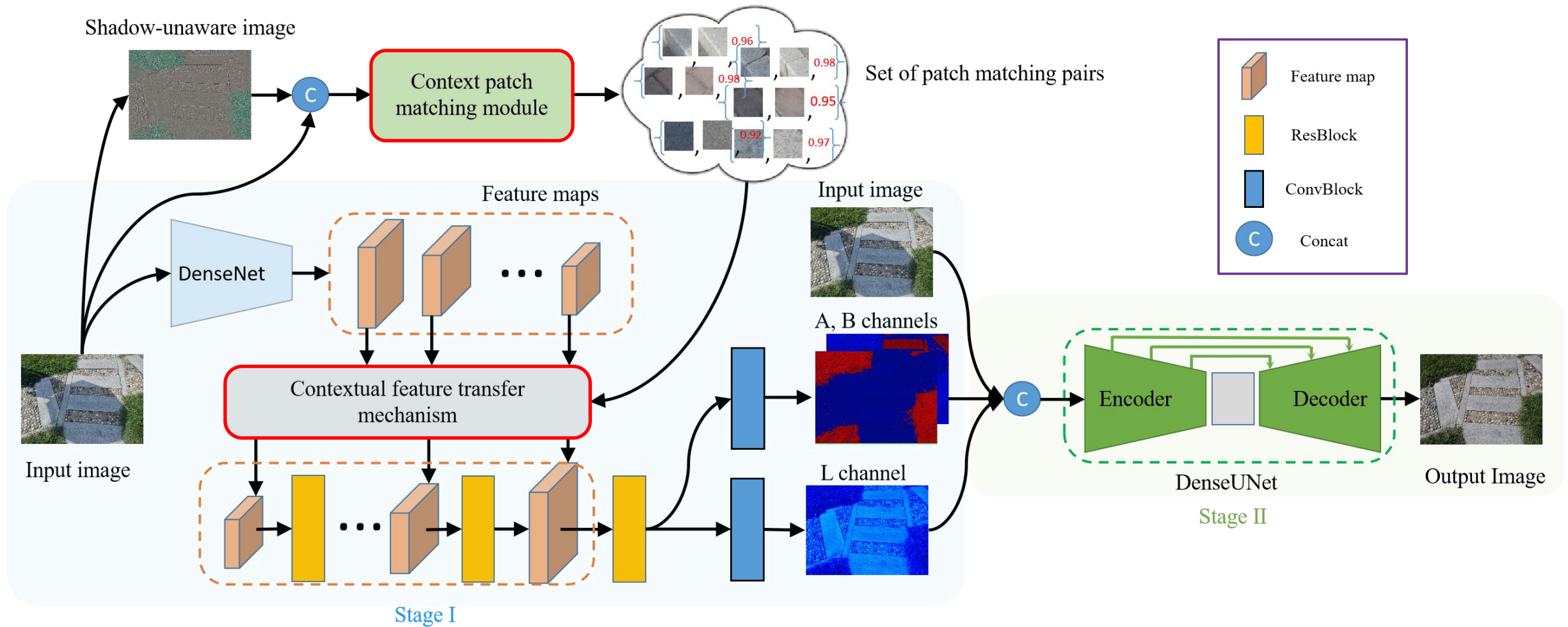


# Motivation

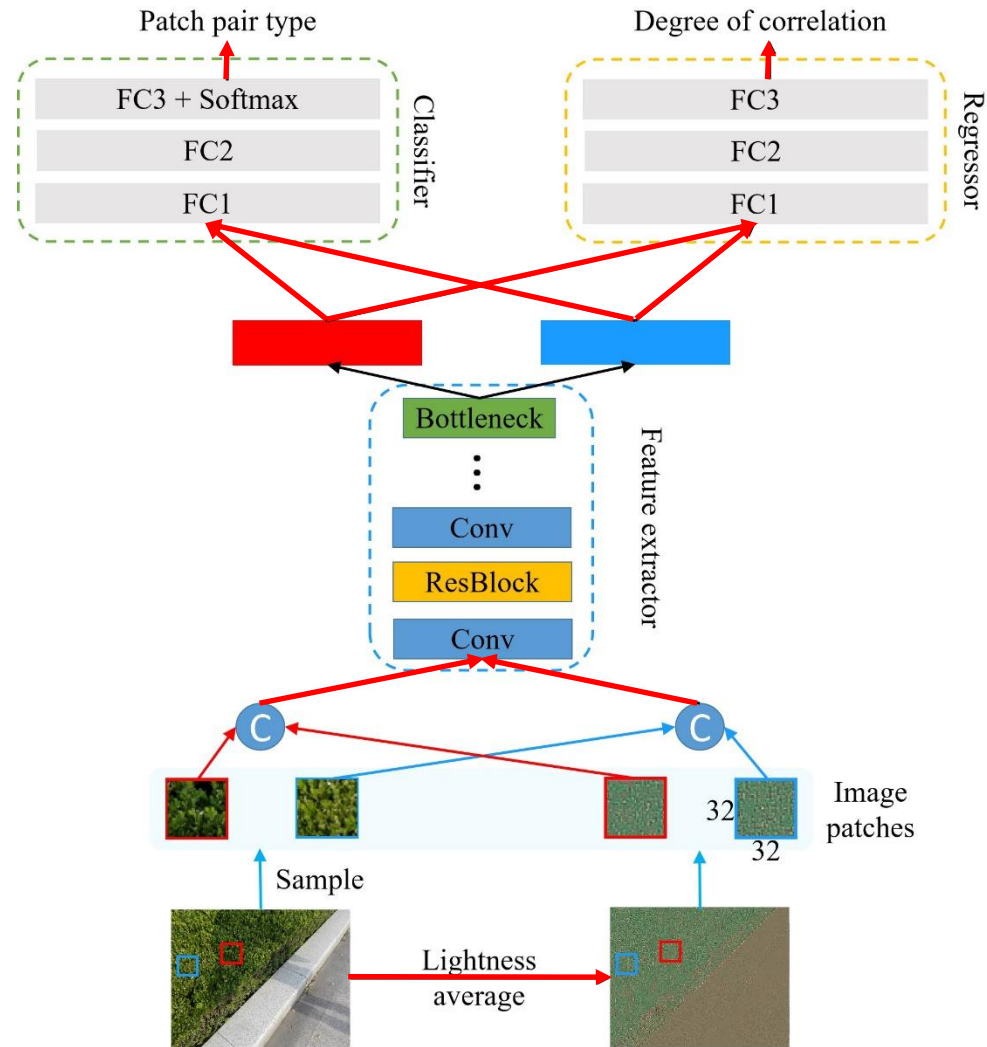


There are some paired contextual matching information between shadow and non-shadow areas.

# Overview

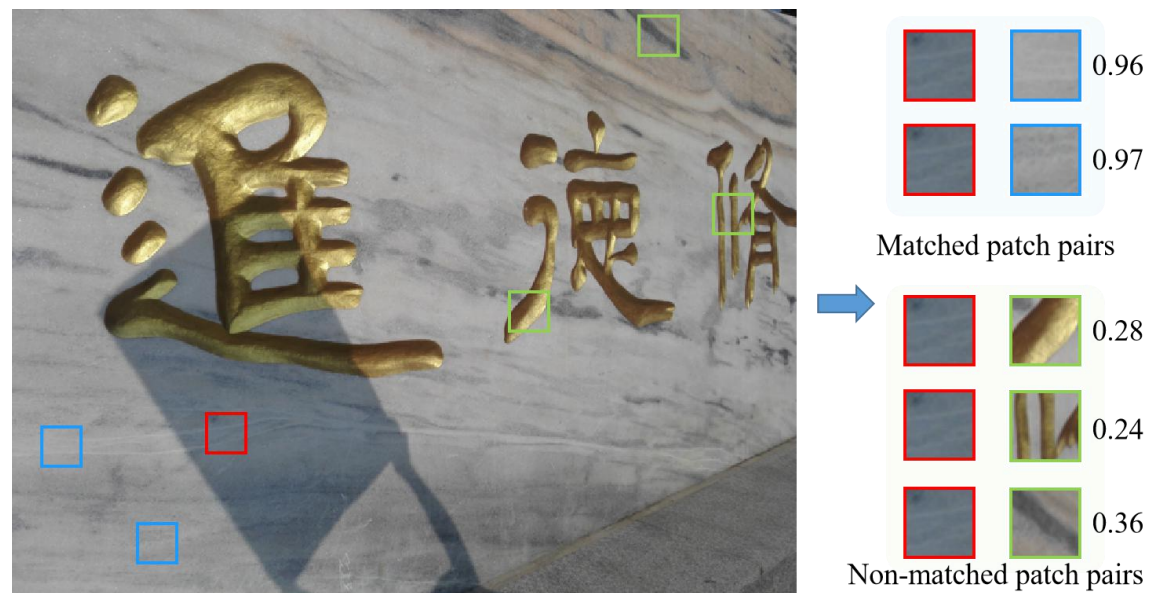


# Context patch matching module

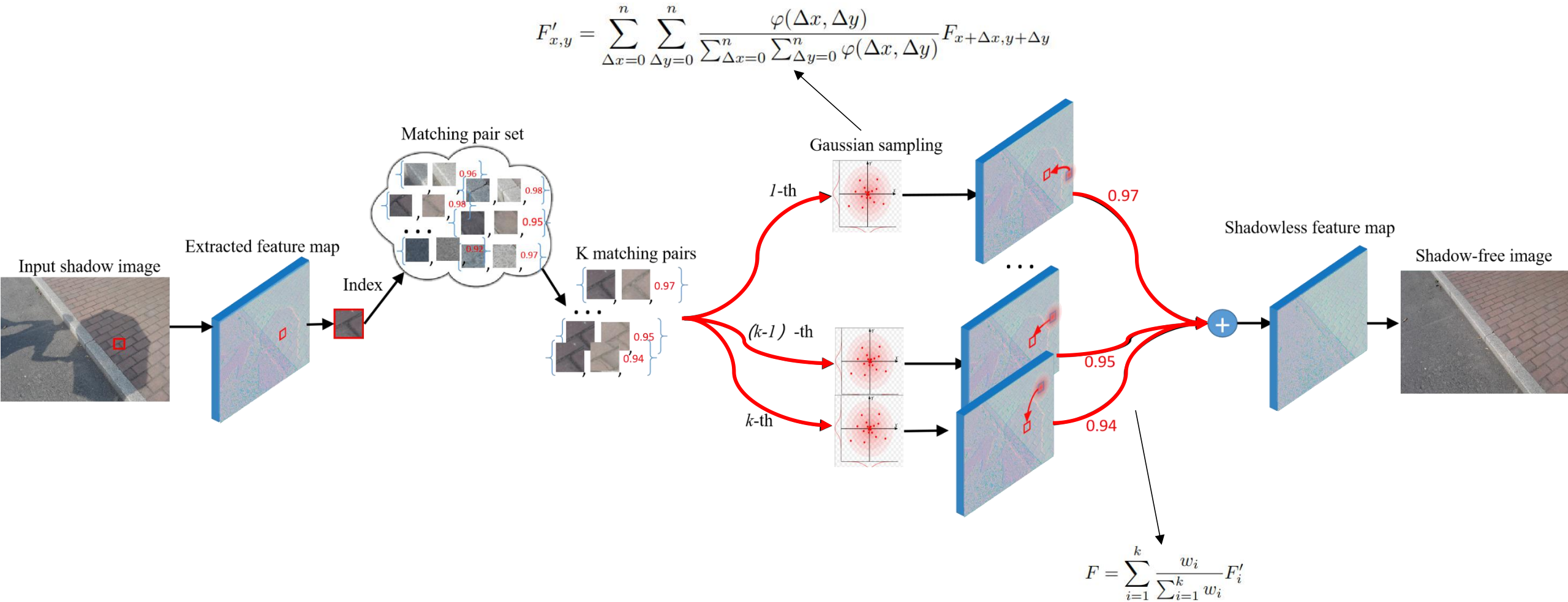




# Context patch matching module



# Contextual feature transfer mechanism



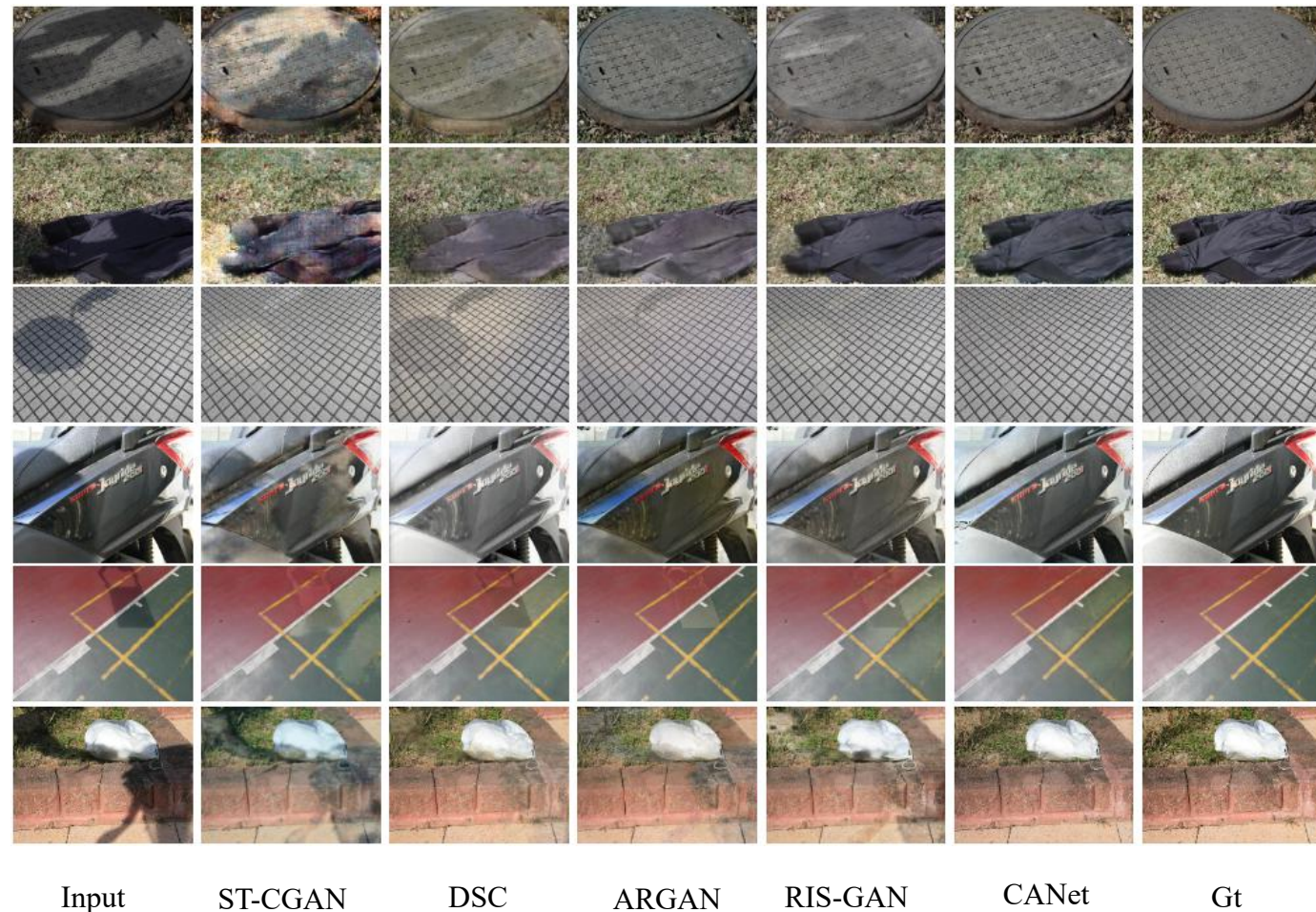


# Experimental results

Method	ISTD			SRD		
	S	N	A	S	N	A
Guo	18.95	7.46	9.3	29.89	6.47	12.60
Zhang	13.77	7.17	8.16	9.50	6.90	7.24
DeshadowNet	12.76	7.19	7.83	17.96	6.53	8.47
ST-CGAN	10.33	6.93	7.47	12.65	6.37	7.83
Mask-shadowGAN	10.35	7.03	7.61	10.32	6.83	7.32
ARGAN	9.21	6.27	6.63	8.13	6.05	6.23
DSC	9.22	6.39	6.67	8.22	6.01	6.21
RIS-GAN	9.15	6.31	6.62	8.09	6.02	6.17
<b>CANet</b>	<b>8.86</b>	<b>6.07</b>	<b>6.15</b>	<b>7.82</b>	<b>5.88</b>	<b>5.98</b>

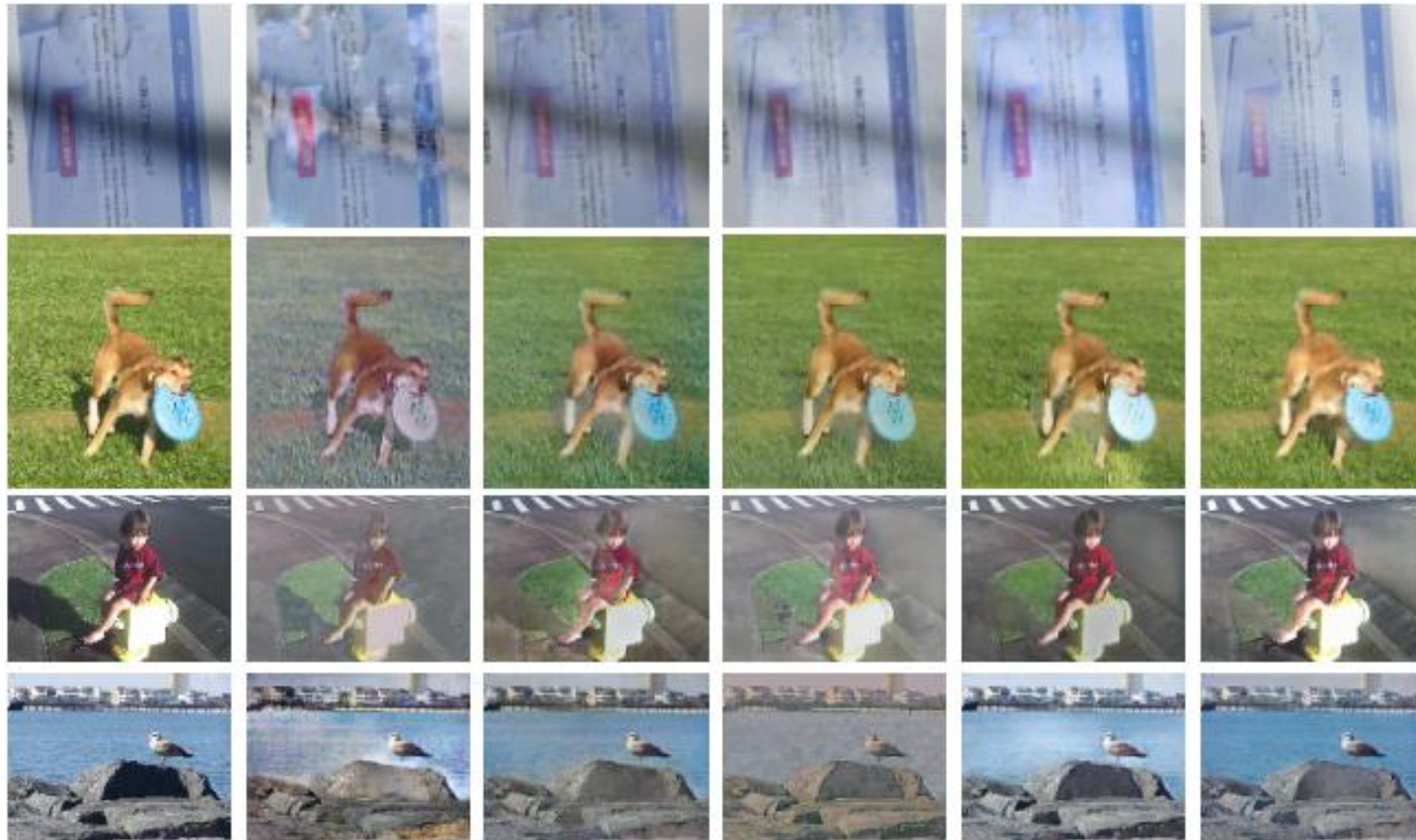
  

Method	ISTD			SRD		
	S	N	A	S	N	A
CANet w/ TM	9.62	6.33	6.98	8.44	6.58	6.89
CANet w/ MNet	9.16	6.20	6.52	8.17	6.21	6.35
CANet w/o CFT	10.11	6.88	7.54	9.28	6.35	6.96
CANet w/ DRCF	9.15	6.21	6.56	8.10	6.11	6.25
DenseUNet	10.22	7.02	7.58	10.44	6.71	7.28
<b>CANet</b>	<b>8.86</b>	<b>6.07</b>	<b>6.15</b>	<b>7.82</b>	<b>5.88</b>	<b>5.98</b>





# Results on complex real-world images



Input

ST-CGAN

DSC

ARGAN

RIS-GAN

CANet

Paper QR Code:

<http://graphvision.whu.edu.cn/papers/chenzipei2021iccv.pdf>



Thank You !

This work was partly supported by the Key Technological Innovation Projects of Hubei Province (2018AAA062), NSFC (NO. 61972298), and CAAI-Huawei MindSpore Open Fund. The corresponding author is Chunxia Xiao.