



NUS-Tsinghua Centre for Extreme Search  
A Joint Research Collaboration Between NUS & Tsinghua University

# Graph Guided Adversarial Networks

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- Single Object



*\*Taken from Liqian et al, NIPS 2017*

- Multiple Objects



↑  
*Condition  
Image*

↑  
*Target  
Image*

- Multiple Objects

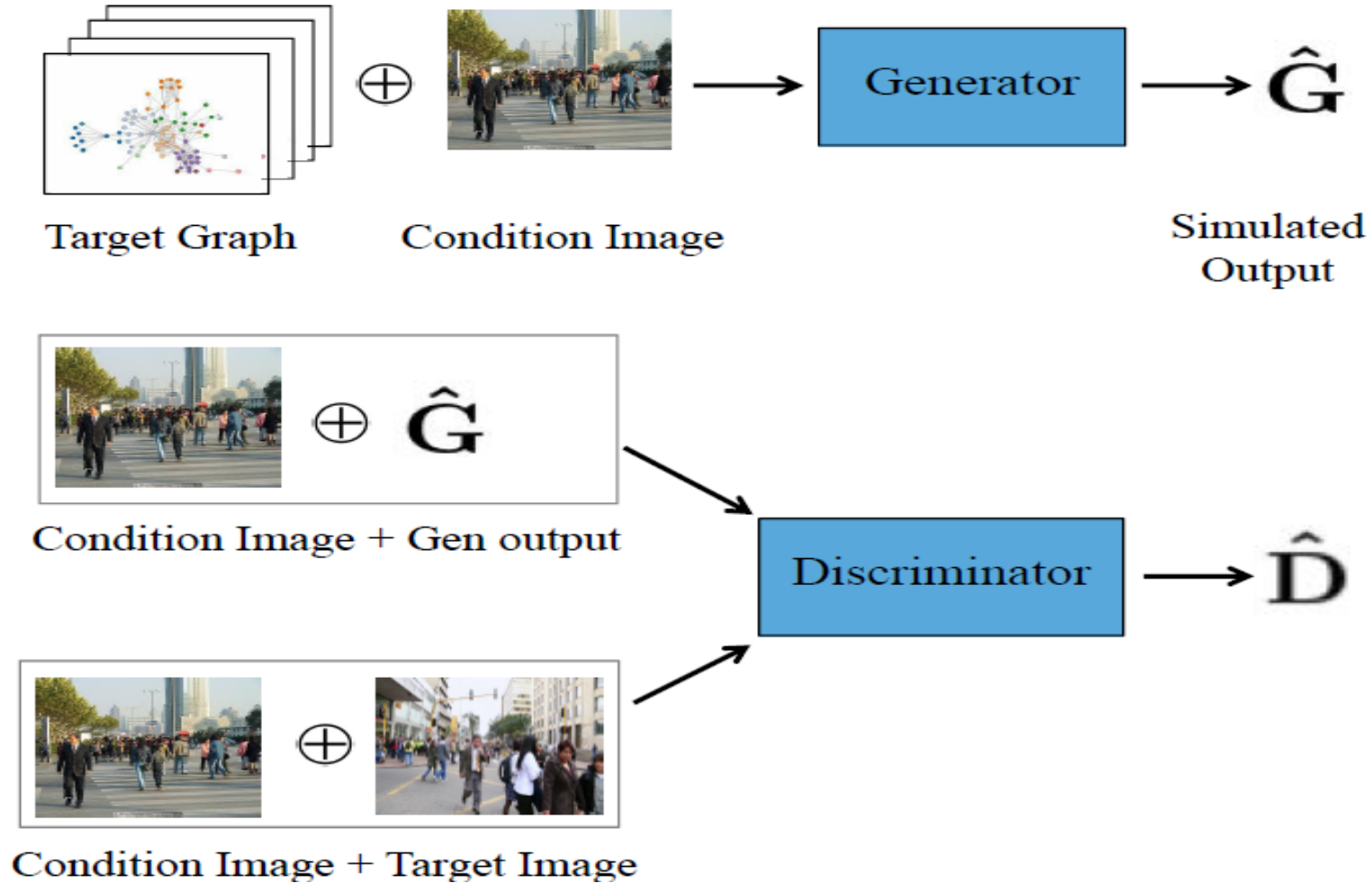


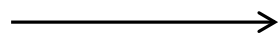
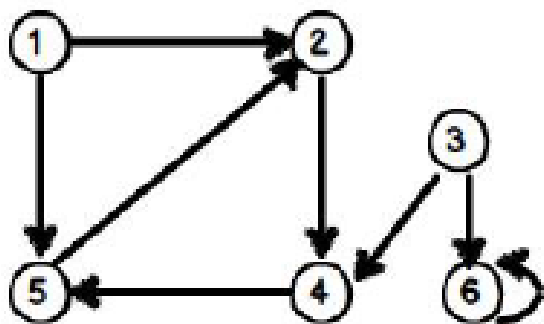


# Model Layout

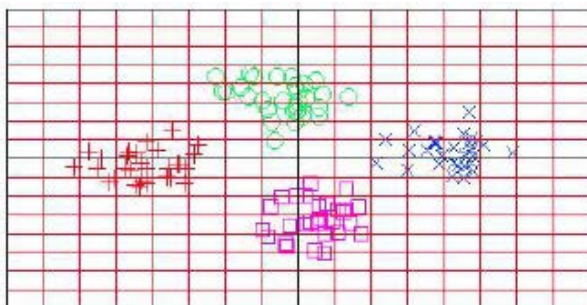
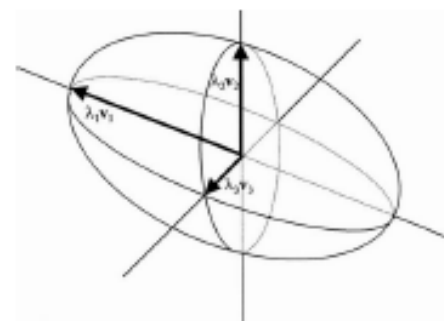
- Feed to generator some knowledge about the spatial information of objects in the target image







	1	2	3	4	5	6
1	0	1	0	0	1	0
2	0	0	0	1	0	0
3	0	0	0	1	0	1
4	0	0	0	0	1	0
5	0	1	0	0	0	0
6	0	0	0	0	0	1





# Key Challenges

- Efficient graph construction
- Training the network with graph
- Graph augmentation to make it compatible with input image (to preserve spatial information)







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# Thank You

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