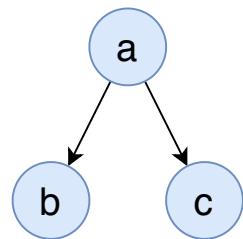


Input graph

Adjacency matrix (A)

0	1	1
1	0	0
1	0	0

Feature matrices (F)

a0	a1
b0	b1
c0	c1

$$F^T \otimes A$$

Populate A with features

0	a0	a0	
b0	0	0	a1
c0	0	0	0
	c1	0	0

$$A \otimes F$$

0	b0	c0	
a0	0	0	c1
a0	0	0	0
	a1	0	0

Stack

Create connected node pairs

0	a0	a0		
b0	0	0	a1	
c0	0	0	0	c0
	c1	0	0	0
		a0	0	0
		a1	0	0

Conv2D(2, (1,1))

Representations of node pairs

0	ab0	ac0
ba0	0	0
ca0	0	0

0	ab1	ac1
ba1	0	0
ca1	0	0

Graph Conv

Update node features based on neighbourhood

$w0(ab0 + ac0)$
$w0(ba0)$
$w0(ca0)$

$w1(ab1 + ac1)$
$w1(ba1)$
$w1(ca1)$