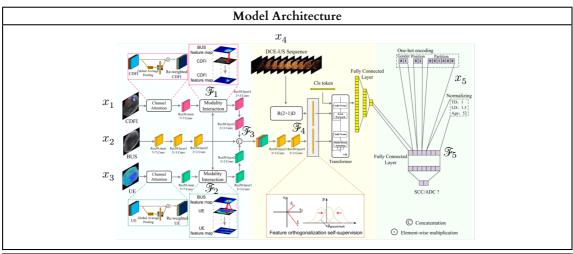# 30 MSMFN: An Ultrasound Based Multi-Step Modality Fusion Network for Identifying the Histologic Subtypes of Metastatic Cervical Lymphadenopathy [30]

Model Architecture

Fusion Formulas		
$\mathscr{F}_1 = \boxplus(x_1^1, x_2^3)$	$\mathscr{F}_2 = \boxplus(x_2^3, x_3^1)$	$\mathscr{F}_3 = \oplus(x_2^3, \mathscr{F}_1^2, \mathscr{F}_2^2)$
$\mathscr{F}_4 = \rightleftharpoons(x_4^x, \mathscr{F}_3^2)$	$\mathscr{F}_5 = \oplus(x_5^0, \mathscr{F}_4^7)_{\rightarrow}$	

Fusion Graph Representation	Fusion Analysis	
	How Many: Single or Multiple?	Multiple, 5
	Number of Fusion Flows	1
	Multiple Type Sudden, Gradual or Multi-Flow?	Gradual
	|**Sudden**| **Synchro?**	No