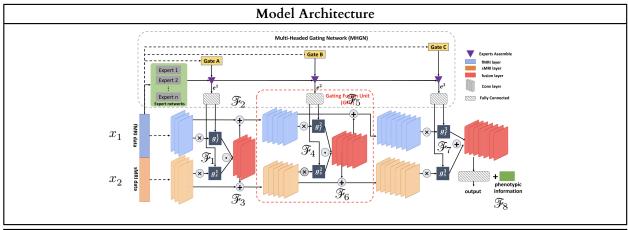# 4 Attention–like multimodality fusion with data augmentation for diagnosis of mental disorders using MRI [4]

Model Architecture

Fusion Formulas

$\mathscr{F}_1 = \mathbb{S}(x_1^3, x_2^3)$	$\mathscr{F}_2 = \oplus(x_1^3, \mathscr{F}_1^3)$	$\mathscr{F}_3 = \oplus(x_2^3, \mathscr{F}_1^3)$	$\mathscr{F}_4 = \mathbb{S}(\mathscr{F}_2^5, \mathscr{F}_3^5)$
$\mathscr{F}_5 = \oplus(\mathscr{F}_4^5, \mathscr{F}_2^5)$	$\mathscr{F}_6 = \oplus(\mathscr{F}_3^5, \mathscr{F}_4^5)$	$\mathscr{F}_7 = \mathbb{S}(\mathscr{F}_5^7, \mathscr{F}_6^7)$	$\mathscr{F}_8 = \oplus(x_3^0, \mathscr{F}_7^0)_{\rightarrow}$

Fusion Graph Representation	Fusion Analysis	
	How Many: Single or Multiple?	Multiple, 8
	Number of Fusion Flows	1
	Multiple Type Sudden, Gradual or Multi–Flow?	Gradual
	|Sudden| Synchro?	No