

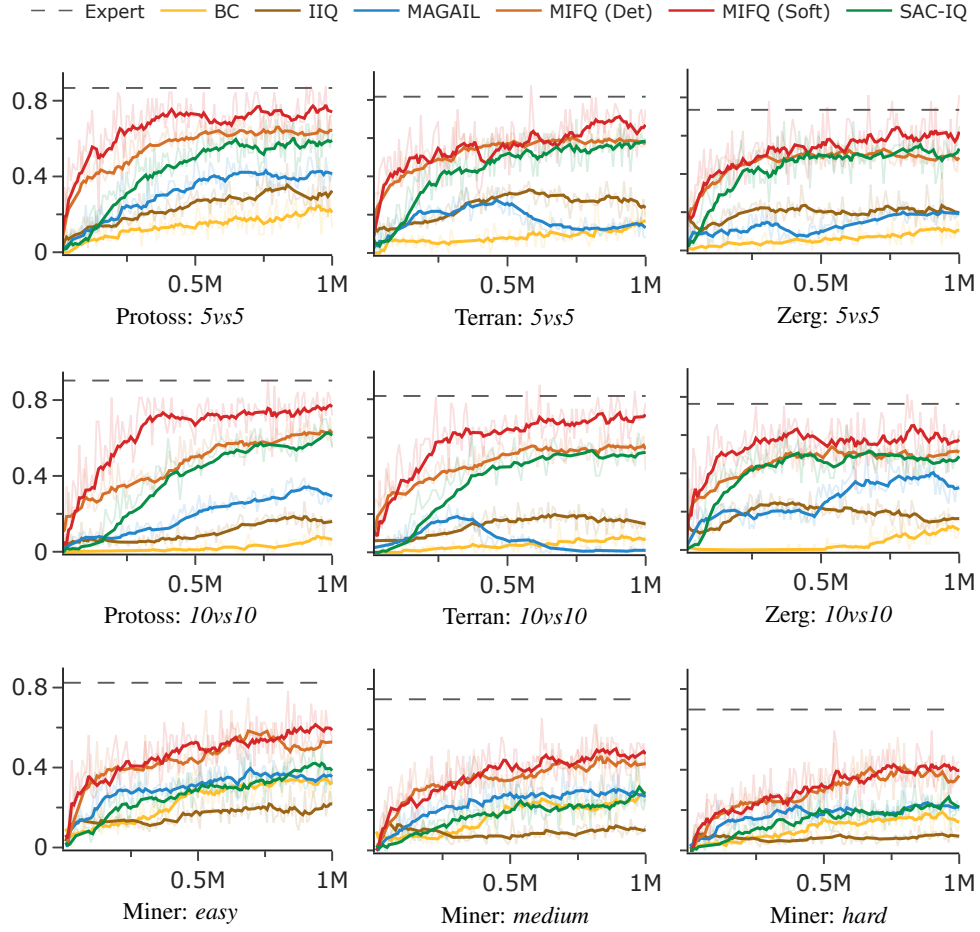


Figure 1: Learning curves

Task		Expert	MAGAIL	MIFQ		SAC-IQ
				(Det)	(Soft)	
Protoss	5vs5	86.7	42.6 $\pm$ 4.6	64.8 $\pm$ 4.1	72.7 $\pm$ 10.0	60.6 $\pm$ 3.2
	10vs10	90.3	28.3 $\pm$ 2.3	61.7 $\pm$ 5.8	77.3 $\pm$ 5.6	64.4 $\pm$ 6.2
Terran	5vs5	81.7	10.9 $\pm$ 4.5	55.9 $\pm$ 0.4	71.9 $\pm$ 3.8	59.4 $\pm$ 2.1
	10vs10	81.7	1.0 $\pm$ 0.7	53.8 $\pm$ 6.9	72.7 $\pm$ 3.4	53.7 $\pm$ 6.3
Zerg	5vs5	73.5	18.8 $\pm$ 0.6	46.7 $\pm$ 5.2	60.9 $\pm$ 14.7	55.6 $\pm$ 6.2
	10vs10	76.3	31.2 $\pm$ 3.6	51.0 $\pm$ 2.2	59.4 $\pm$ 3.1	51.3 $\pm$ 6.3
Miner	easy	82.4	34.6 $\pm$ 3.3	52.7 $\pm$ 0.7	60.2 $\pm$ 5.6	35.0 $\pm$ 5.3
	medium	74.9	26.0 $\pm$ 1.5	43.8 $\pm$ 2.2	49.2 $\pm$ 5.1	26.9 $\pm$ 6.7
	hard	69.8	20.9 $\pm$ 2.4	39.1 $\pm$ 5.2	39.8 $\pm$ 4.6	18.8 $\pm$ 1.3

Table 1: Winning rate (percentage)