

Rebuttal Material for Paper # 4515

This document contains the following:

- A new modified Assurance game and new MANSA CL call plot
- Area under curve results for StarCraft Multi-Agent Challenge
- Area under curve results for Level-Based Foraging
- MANSA SMAC maps with extra seeds
- Win rate training curves for MANSA with restriction on CL updates and baselines
- Win rates for MANSA-B with restriction on CL updates and baselines

	Up	Down
Up	$5(1 + \alpha), 5(1 + \alpha)$	$10\alpha, 10\alpha$
Down	$10\alpha, 10\alpha$	10, 10

Table 1: Modified reward functions of Assurance Game.

	AUC	std
MANSA	0.667676	0.013114
QMIX	0.621228	0.048804
IQL	0.3949	0.009503

Table 2: Mean and standard deviation of each algorithm at each step in each map from SMAC.

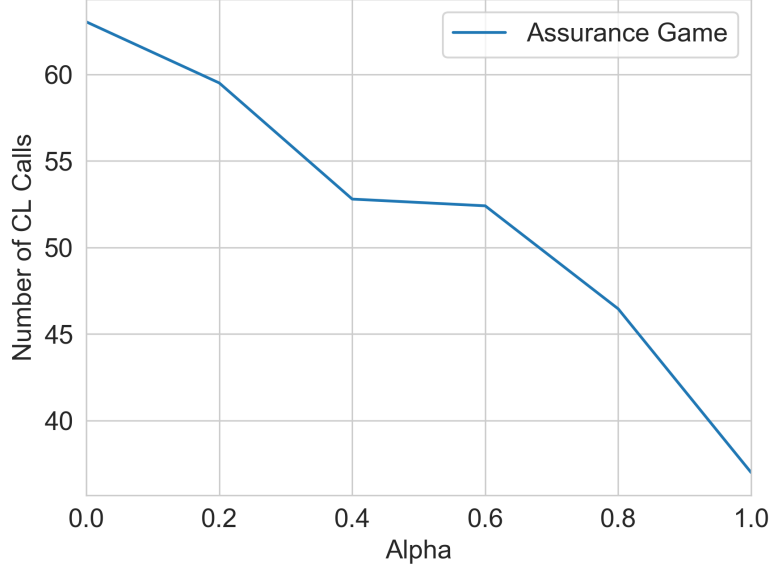


Figure 1: MANSA CL calls in Modified Assurance game in Table 1.

	AUC	std
MANSA	0.692759	0.007762
QMIX	0.363176	0.009317
IQL	0.617038	0.006738

Table 3: Mean and standard deviation of each algorithm at each step in each map from LBF.

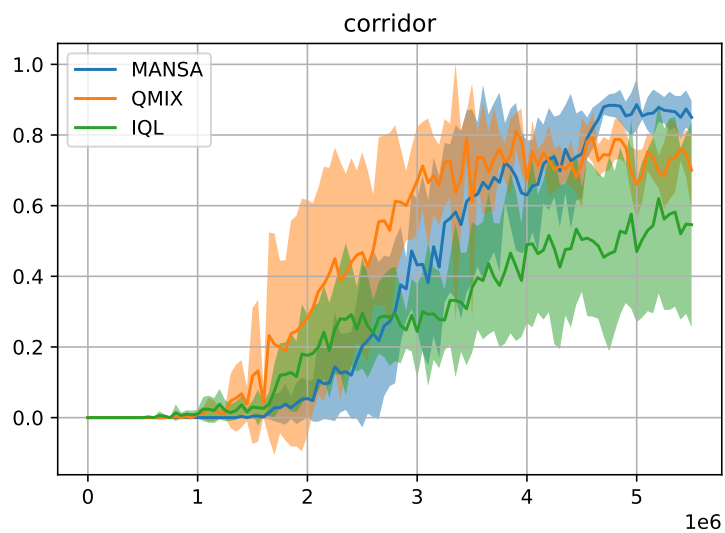


Figure 2: MANSA and baselines with 5 seeds.

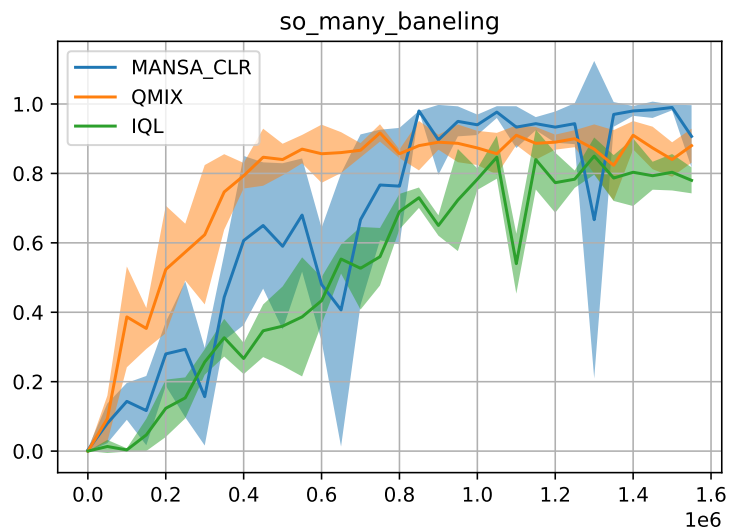


Figure 3: End-of-training win-rates of MANSA with implementation with CL update restriction (MANSA_CLR)

	Original/QMIX/IQL	10%	20%	50%	75%
2m_vs_1z	98.00 ± 1.00 92.00 ± 1.63 87.00 ± 0.82	100.00 ± 0.00	99.67 ± 0.57	96.67 ± 3.05	99.00 ± 0.00

Table 4: End-of-training win-rates of MANSA-B with implementation with CL update restriction and various CL call budget constraints against baselines.