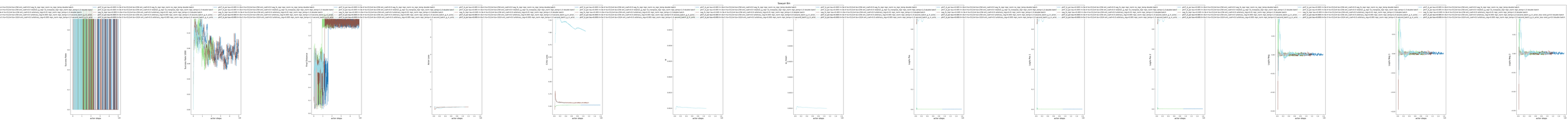

0 1 2 3 4 5

actor steps 1e6

0.0

0.2

0.4

0.6

0.8

1.0

Success Rate

e-4 hs=512x4 bs=256 ent_coef=0.0 sag_fs_repr repr_norm no_repr_temp double batch
e-4 hs=512x4 bs=256 ent_coef=0.0 rotation_g_repr no_tranpose_repr repr_norm repr_temp=1.0 double batch
3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.01 repr_norm repr_temp=1.0 double batch
e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch
e-5 hs=512x4 bs=1024 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch

0 1 2 3 4 5

actor steps

1e6

0.00

0.02

0.04

0.06

0.08

0.10

0.12

Success Rate 1000

phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 sag_fs_repr repr_norm no_repr_temp double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 rotation_g_repr no_tranpose_repr repr_norm repr_temp=1.0 double batch
sag_fs_repr tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.01 repr_norm repr_temp=1.0 double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch phiTA_psi tau=0.005 lr=5e-5 hs=512x4 bs=1024 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch

0 1 2 3 4 5

actor steps

1e6

0.0

0.2

0.4

0.6

0.8

1.0

1.2

1.4

1.6

Final Distance

phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 sag_fs_repr repr_norm no_repr_temp double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 rotation_g_repr no_tranpose_repr repr_norm repr_temp=1.0 double batch
sag_fs_repr tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.01 repr_norm repr_temp=1.0 double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch phiTA_psi tau=0.005 lr=5e-5 hs=512x4 bs=1024 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch

0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6

actor steps

1e6

0

1

2

3

4

5

Actor Loss

phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 sag_fs_repr repr_norm no_repr_temp double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 rotation_g_repr no_tranpose_repr repr_norm repr_temp=1.0 double batch
sag_fs_repr tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.01 repr_norm repr_temp=1.0 double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch phiTA_psi tau=0.005 lr=5e-5 hs=512x4 bs=1024 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch

0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6

actor steps

1e6

5.50

5.75

6.00

6.25

6.50

6.75

7.00

7.25

7.50

Critic Loss

phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 sag_fs_repr repr_norm no_repr_temp double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 rotation_g_repr no_tranpose_repr repr_norm repr_temp=1.0 double batch
sag_fs_repr tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.01 repr_norm repr_temp=1.0 double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch phiTA_psi tau=0.005 lr=5e-5 hs=512x4 bs=1024 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch

0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6

actor steps

1e6

0.0010

0.0015

0.0020

0.0025

0.0030

0.0035

0.0040

w

phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 sag_fs_repr repr_norm no_repr_temp double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 rotation_g_repr no_tranpose_repr repr_norm repr_temp=1.0 double batch
sag_fs_repr tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.01 repr_norm repr_temp=1.0 double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch phiTA_psi tau=0.005 lr=5e-5 hs=512x4 bs=1024 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch

0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6

actor steps

1e6

0.0010

0.0015

0.0020

0.0025

0.0030

0.0035

0.0040

w_mean

phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 sag_fs_repr repr_norm no_repr_temp double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 rotation_g_repr no_tranpose_repr repr_norm repr_temp=1.0 double batch
sag_fs_repr tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.01 repr_norm repr_temp=1.0 double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch phiTA_psi tau=0.005 lr=5e-5 hs=512x4 bs=1024 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch

0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6

actor steps

1e6

0.0

0.2

0.4

0.6

0.8

1.0

Logits Pos

phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 sag_fs_repr repr_norm no_repr_temp double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 rotation_g_repr no_tranpose_repr repr_norm repr_temp=1.0 double batch
sag_fs_repr tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.01 repr_norm repr_temp=1.0 double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch phiTA_psi tau=0.005 lr=5e-5 hs=512x4 bs=1024 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch

0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6

actor steps

1e6

0.0

0.2

0.4

0.6

0.8

1.0

Logits Pos 1

phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 sag_fs_repr repr_norm no_repr_temp double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 rotation_g_repr no_tranpose_repr repr_norm repr_temp=1.0 double batch
sag_fs_repr tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.01 repr_norm repr_temp=1.0 double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch phiTA_psi tau=0.005 lr=5e-5 hs=512x4 bs=1024 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch

0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6

actor steps

1e6

0.0

0.2

0.4

0.6

0.8

1.0

Logits Pos 2

phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 sag_fs_repr repr_norm no_repr_temp double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 rotation_g_repr no_tranpose_repr repr_norm repr_temp=1.0 double batch
sag_fs_repr tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.01 repr_norm repr_temp=1.0 double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch phiTA_psi tau=0.005 lr=5e-5 hs=512x4 bs=1024 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch

0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6

actor steps

1e6

0.03

0.02

0.01

0.00

0.01

0.02

Logits Neg

phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 sag_fs_repr repr_norm no_repr_temp double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 rotation_g_repr no_tranpose_repr repr_norm repr_temp=1.0 double batch
sag_fs_repr tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.01 repr_norm repr_temp=1.0 double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch phiTA_psi tau=0.005 lr=5e-5 hs=512x4 bs=1024 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch

0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6

actor steps

1e6

0.03

0.02

0.01

0.00

0.01

0.02

Logits Neg 1

phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 sag_fs_repr repr_norm no_repr_temp double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 rotation_g_repr no_tranpose_repr repr_norm repr_temp=1.0 double batch
sag_fs_repr tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.01 repr_norm repr_temp=1.0 double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch phiTA_psi tau=0.005 lr=5e-5 hs=512x4 bs=1024 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch

0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6

actor steps

1e6

0.03

0.02

0.01

0.00

0.01

0.02

Logits Neg 2

phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 sag_fs_repr repr_norm no_repr_temp double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 rotation_g_repr no_tranpose_repr repr_norm repr_temp=1.0 double batch
sag_fs_repr tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.01 repr_norm repr_temp=1.0 double batch
phiT_A_psi tau=0.005 lr=3e-4 hs=512x4 bs=256 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch phiTA_psi tau=0.005 lr=5e-5 hs=512x4 bs=1024 ent_coef=0.0 arbitrary_reg=0.005 repr_norm repr_temp=1.0 second_batch_g_in_actor_loss rand_g=0.0 double batch

Sawyer Bin