FINAL CHECKS

**NET1**

|  |  |  |  |
| --- | --- | --- | --- |
| LR | Plotted/ in FinalNet1: TrErr|ValErr|N\_epoch | Source | Other vers, sources |
| EPNolat,  Beta reg | 0, 2.53, 40 | Repr\_Analysis/Recheck\_EP/net1.save | 0.004, 3.04, 25: SB\_Repr/Net1/ n1\_betasigned\_cluster.save |
| EPNolat,  Beta pos | 0.034, 2.18, 100 | Repr\_Analysis/Recheck\_EP/net1\_betapos\_gs\_bfit\_full.save | 0, 2.99, 40: Repr\_Analysis/ Recheck\_EP/net1\_betapos.save (same hp as beta reg) |
| EPLat | 0, 2.29, 40 | RR/eplat\_bfit6\_full.save | 0, 2.11, 25: RR/eplat\_bfit6.save |
| SMEP | 0, 2.16, 26 | Isolated/Isolated\_Repr1/Results/smep.save |  |

**NET3**

|  |  |  |  |
| --- | --- | --- | --- |
| LR | Plotted/ in FinalNet1: TrErr|ValErr|N\_epoch | Source | Other vers, sources |
| EPNolat,  Beta reg | *0, 2.73, 386* | RR/net3\_betasigned.save (new) | 0.026, 2.67, 150: SB\_Repr/Net3/net3\_betasigned\_fast.save |
| EPNolat,  Beta pos | 0, 2.77, 394 | RR/net3\_betapos.save(new) | 0.012, 2.65, 250: SB\_Repr/TrErr\_0/net3\_betapos\_fast.save |
| EPLat | 0, 2.4, 250 | Fast\_Net3\_reruns/EPLat\_GS/gs\_fast\_21.save |  |
| SMEP | 0, 4.82, 250 | FNr/smep\_const.save (new) | 0.198, 5.11, 227: FNr/GS2/gs\_fast\_20.save |
| SMEP\_Adap | 0, 3.52, 250 | Fast\_Net3\_reruns/adap\_trerr/smep\_250ep\_4.save |  |

**STRUC**

|  |  |  |  |
| --- | --- | --- | --- |
| LR | Plotted/ in FinalNet1: TrErr|ValErr|N\_epoch | Source | Other vers, sources |
| R4\_NPS4\_Full | 0.012, 2.71, 50 | Scratch\_Files/Structured/smep\_s2\_r4\_nps4/Full28x28/str\_nps4\_30.save |  |
| R4\_NPS16\_Full | 0, 2.41, 49 | Structured/smep\_lay1\_r4/s2\_nps16.save |  |
| R4\_NPS20\_Full | 0, 2.22, 50 | Scratch\_Files/Structured/smep\_s2\_r4\_nps20/str\_20.save |  |
|  |  |  |  |
|  |  |  |  |

The second phase performs anti-Hebbian only on ff weights

Red highlights

Add?

~~Table with hypparams: in supplementary~~

~~Table with comparison performance: in supplementary~~

~~Choice of LR constraints in SUpp~~

~~Move adaptive scheme description to Supp~~

~~Cite the figures somewhere in the para~~

~~Acknowledging use of Scellier-Bengio code~~

~~Theano~~

~~FIX THE CHOICE OF PLOTS AND CHOICE OF VALUES~~

~~Recheck plots once again~~

Check if the 3 layer structured yields anything interesting

~~Cite figure 6 in 4.~~

~~Non linearity in the clamping:~~

~~NNSM intro lateral inhibition~~

~~CHECK SECTION 4 ONCE AGAIN~~

Post how many epochs mentioned

Add equations 19, 20 to Sec 4.1

Why is CSM\_Adaptive not basically EP?

Because lateral weight updates are large at the start and lr never becomes completely 0.