Supplementary Material: Learning Structure of Sensory Inputs with Synaptic Plasticity Leads to Interference

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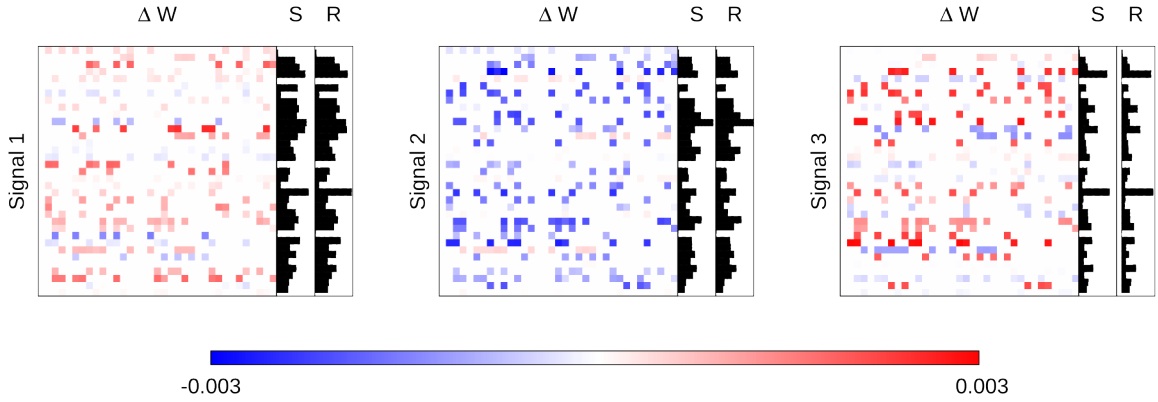
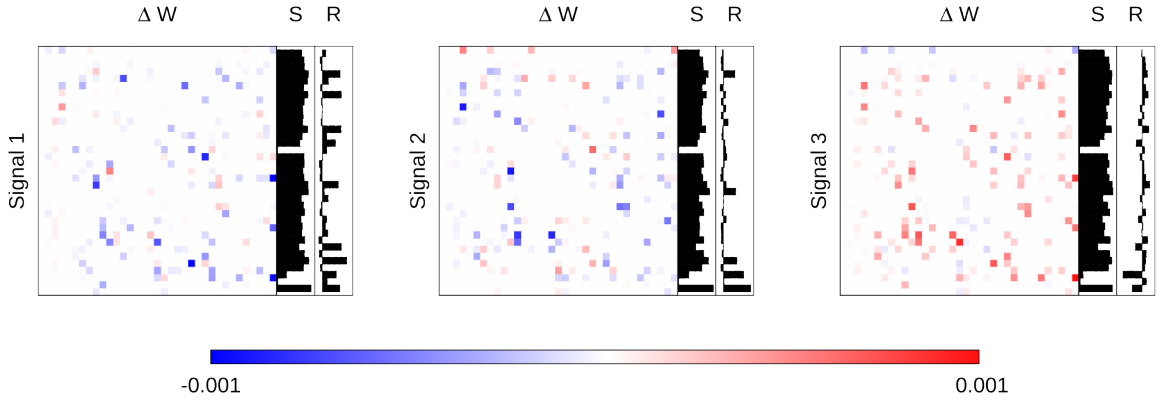
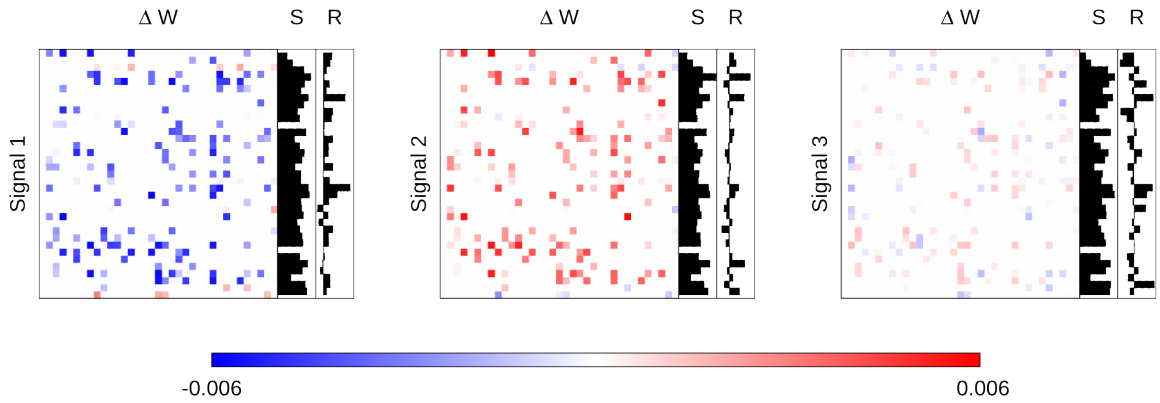
1 SUPPLEMENTARY FIGURES



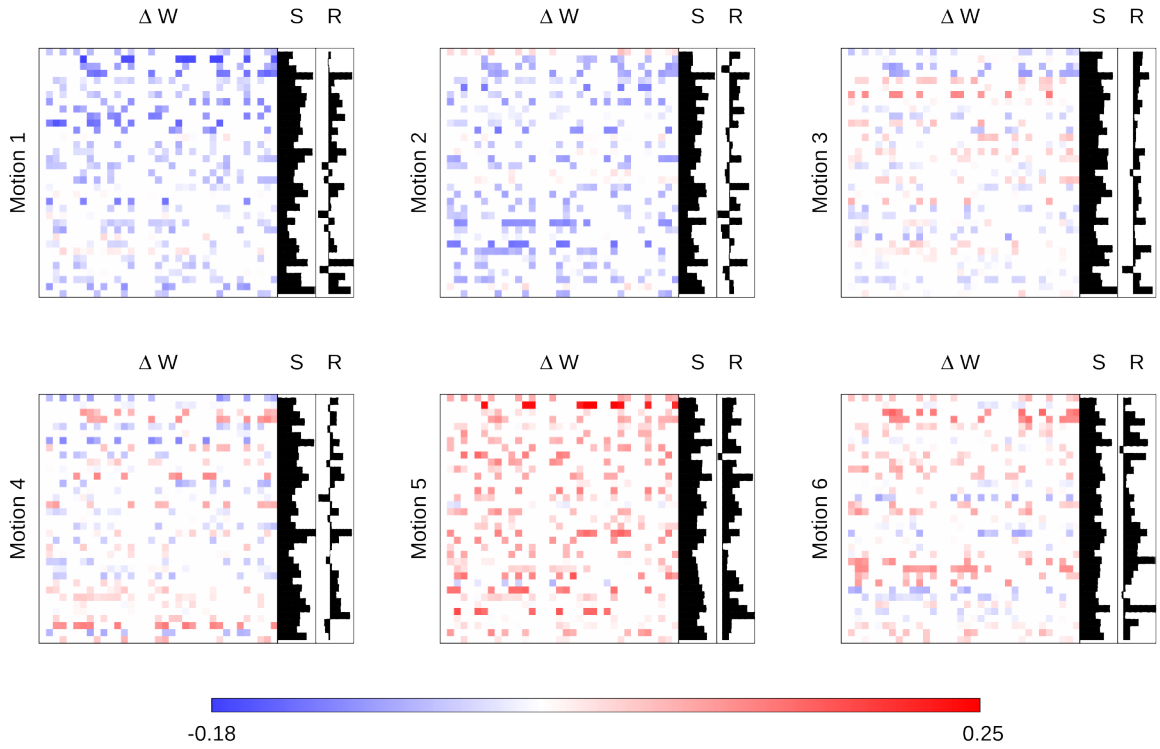
Supplementary Figure 1. The class-specific weight adaptation for the 3 class time-series benchmark task under BCM plasticity. Description of each sub-plot follows Figure 4 in the article.



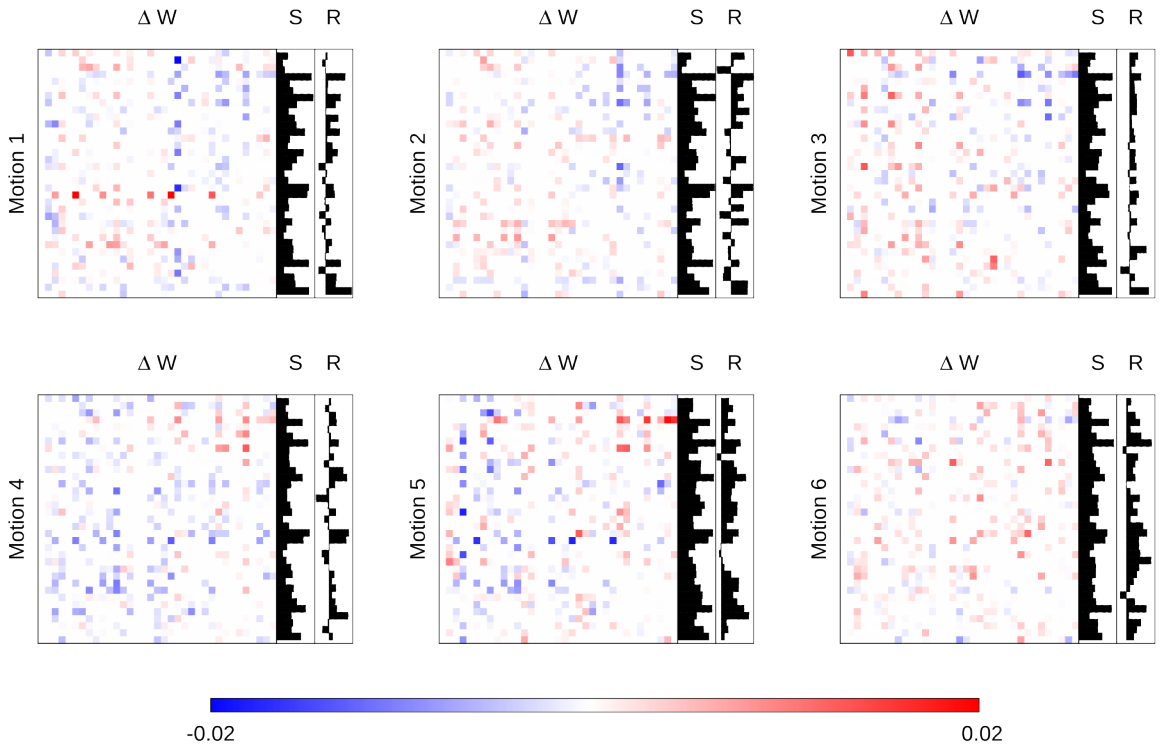
Supplementary Figure 2. The class-specific weight adaptation for the 3 class time-series benchmark task under bi-phasic STDP. Description of each sub-plot follows Figure 4 in the article.



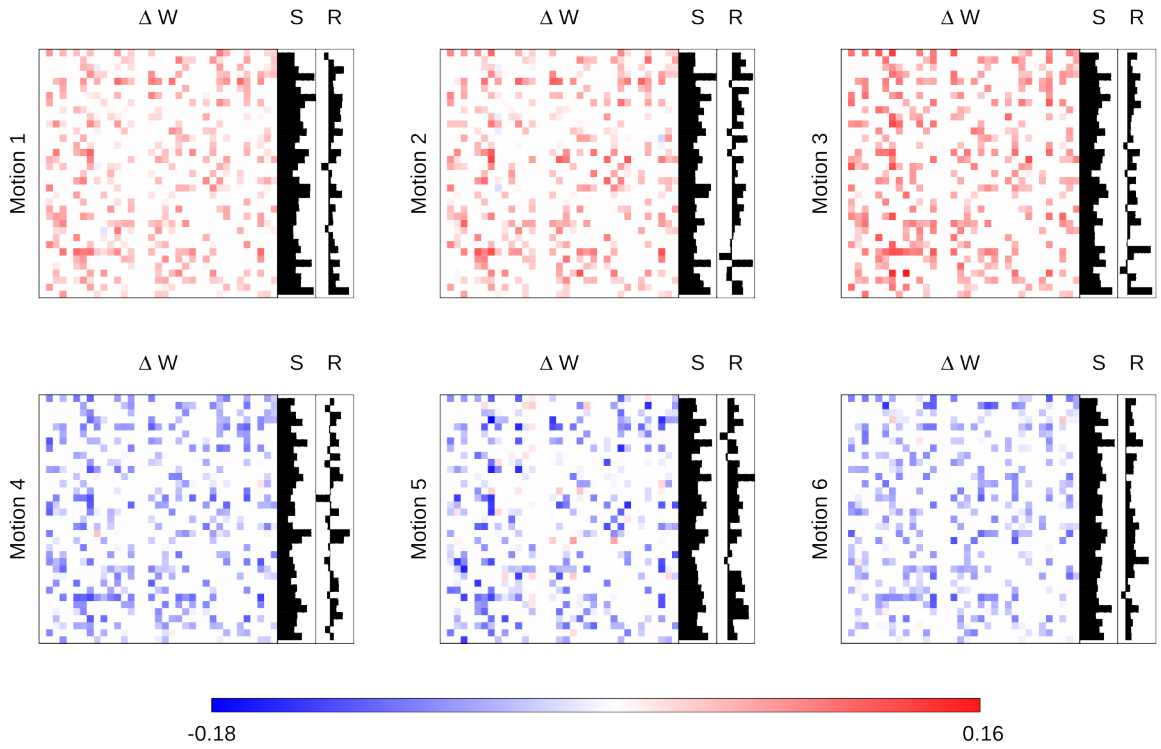
Supplementary Figure 3. The class-specific weight adaptation for the 3 class time-series benchmark task under tri-phasic STDP. Description of each sub-plot follows Figure 4 in the article.



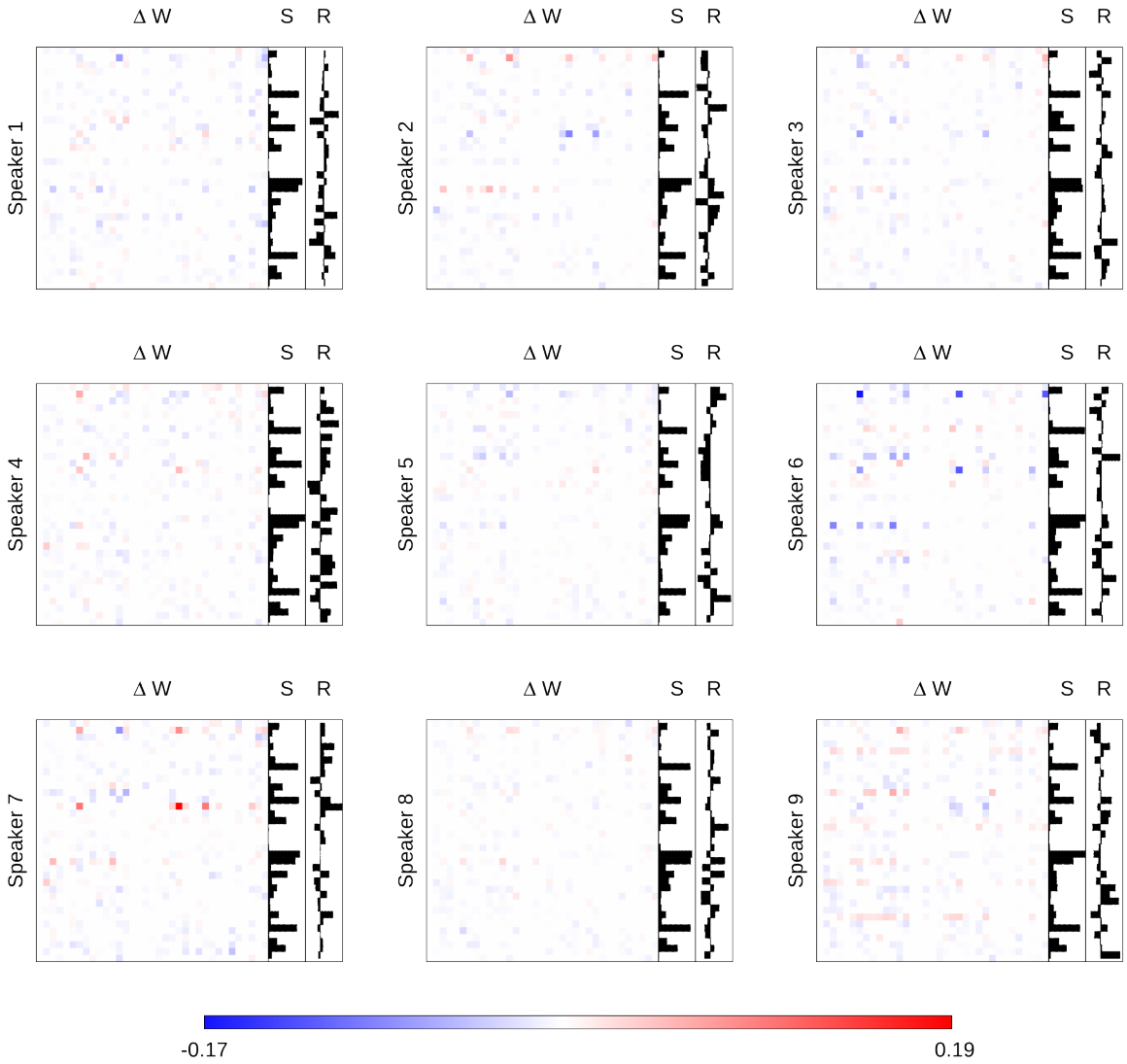
Supplementary Figure 4. The class-specific weight adaptation for the 6 class time-series human behaviour recognition task under BCM plasticity. Description of each sub-plot follows Figure 4 in the article.



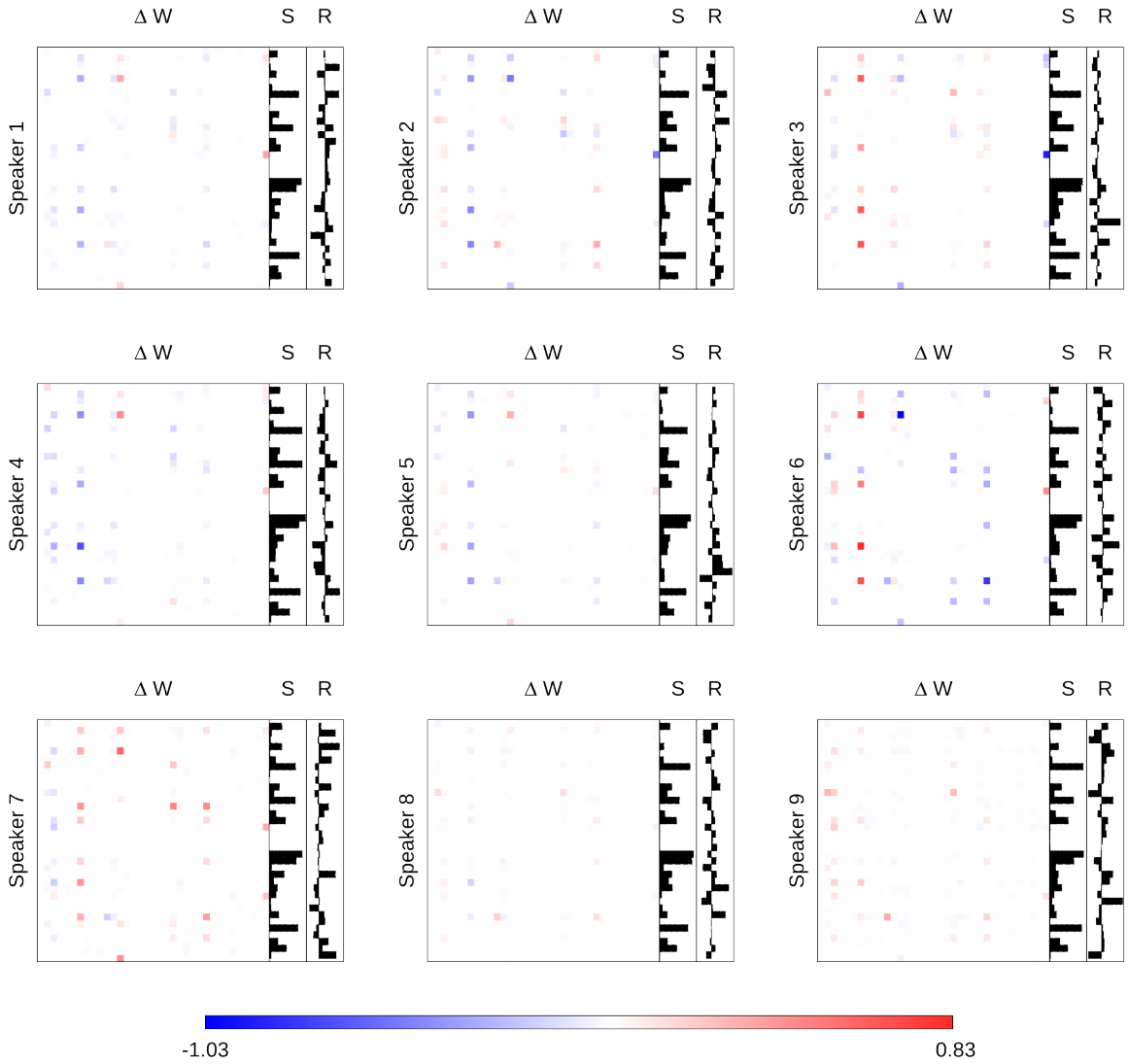
Supplementary Figure 5. The class-specific weight adaptation for the 6 class time-series human behaviour recognition task under bi-phasic STDP. Description of each sub-plot follows Figure 4 in the article.



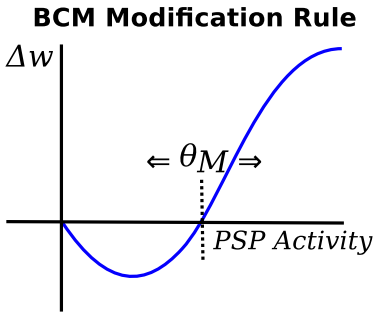
Supplementary Figure 6. The class-specific weight adaptation for the 6 class time-series human behaviour recognition task under tri-phasic STDP. Description of each sub-plot follows Figure 4 in the article.



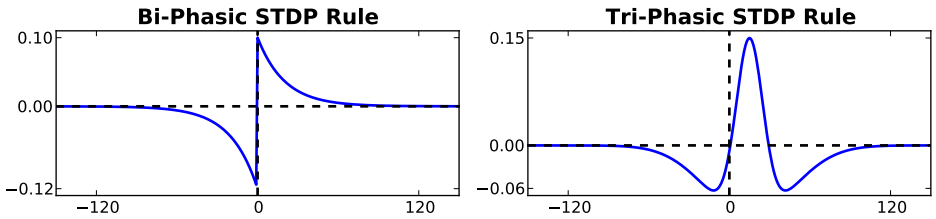
Supplementary Figure 7. The class-specific weight adaptation for the 9 class speaker recognition task under STDP. Description of each sub-plot follows Figure 4 in the article.



Supplementary Figure 8. The class-specific weight adaptation for the 9 class speaker recognition task under Tri-phasic STDP. Description of each sub-plot follows Figure 4 in the article.



Supplementary Figure 9. The Bienenstock-Cooper-Munro plasticity rule illustrated with synaptic weight change on the y-scale and post-synaptic activity on the x-scale. θ_M is the sliding modification threshold that changes based on a temporal average of post-synaptic activity.



Supplementary Figure 10. The two predominantly studied STDP learning windows.