Erratum

It was communicated to us by Mariagiulia De Maria that in the proof of Lemma 4.5 of the main paper, it was falsely claimed that the line bundle $\dot{\omega}_{\mathbb{F}}^{(\underline{\mathrm{ex}},0)}$ descends from $\mathcal{M}_{\mathbb{F}}^{\mathrm{PR,tor}}$ to a line bundle on the minimal compactification $\mathcal{M}_{\mathbb{F}}^{\mathrm{PR},*}$. We thank her for pointing out the mistake.

As De Maria suggested (and proved explicitly in her thesis [1, Lemma 4.1.2]), one should replace all appearance of $\dot{\omega}_{\mathbb{F}}^{(\underline{\mathrm{ex}},0)}$ by the following line bundle

$$\dot{\omega}_{\mathbb{F}}^{\mathrm{new,ex}} := \bigotimes_{i=1}^{r}\bigotimes_{j=1}^{f_i}\bigotimes_{l=1}^{e_i} \dot{\omega}_{\tau^l_{\mathfrak{p}_i,j},\mathbb{F}}^{\otimes 2(2l-e_i-1)} \otimes \dot{\epsilon}_{\tau^l_{\mathfrak{p}_i,j},\mathbb{F}}^{\otimes(e_i+1-2l)}$$

as opposed to the $\dot{\omega}_{\mathbb{F}}^{(\underline{\mathrm{ex}})}$ defined in Lemma 2.7. This line bundle $\dot{\omega}_{\mathbb{F}}^{\mathrm{new,ex}}$ does descent to $\mathcal{M}_{\mathbb{F}}^{\mathrm{PR},*}$. The upshot here is that the sum of exponents

$$\sum_{l=1}^{e_i}(e_i+1-2l)=0$$

for each i (and j). After this change, the rest of the proof of Lemma 4.5 as well as later arguments go through.

References

[1] Mariagiulia De Maria, Hilbert Modular Forms modulo p of partial weight one and unramifiedness of Galois representations, *thesis at l'Université de Lille and l'Université du Luxembourg.*