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We correct two errors in our article titled "Local Maaß forms and Eichler–Selberg relations for negative-weight vector-valued mock modular forms".

1. Modifications to the published version

(1) Throughout the paper, we add the assumption that our homogeneous polynomial p inside the Siegel theta function is equal to 1. Otherwise, the Siegel theta function might not split into a positive definite and a negative definite part in general. In particular, one has to add additional assumptions on the isometry ψ as well as on the polynomial p to obtain such a splitting; see [5, Lemma 2.2] and the discussion preceding it. Finding a preimage of Θ_P under the shadow operator ξ might not be guaranteed for nonconstant polynomials p, and our Proposition 4.1 is wrong if $p \neq 1$ since the Laplacian depends on the given polynomial; see [4, Proposition 2.5] for the correct version.

(2) In Theorem 1.2, we need to specialize the signature of the lattice L to $(2, 1)$ instead of $(2, s)$. This is necessary, because the nature of the singularities of the lift is different in higher dimensions; see [1]. In particular, the first condition in our definition of a local Maaß form on page 389 simplifies to the usual scalar-valued modularity condition; see Bringmann, Kane and Viazovska [2, Subsection 2.4] as well. In general, the Siegel theta function is invariant under the discriminant kernel of $\mathrm{O}(L)$ as a function of $Z \in \mathrm{Gr}(L)$; see [3, p. 40]. In the case of signature $(2, 1)$,

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we have $\mathrm{Gr}(L) \cong \mathbb{H}$, and choosing a particular lattice of that signature leads to further identifications, which in turn yield the framework of [2]. This is described in Section 5 of our paper.

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