

May 10, 1978

Dear Jim,

Thanks for the notes. Of course it has been my hope, or dream, that one could prove the precise conjecture of my final Corvallis lecture (Das Märchen) for the Siegel case, and then it would follow immediately for all subgroups of the group of symplectic similitudes, and much of the elaborate technique developed by Shimura could be forgotten.

To prove it one will probably have to work mod p , and I have only one idea, but I do not know how much it is worth. It may lead nowhere. In my DeKalb lecture and in my letter to Rapoport I introduced groups H/\mathbf{Q} defined by a specific twisting¹ ($H(\mathbf{Q})$ is basically the group of invertible elements in $\text{End } A \otimes \mathbf{Q}$). Moreover $H(\mathbf{A}_f^p) \hookrightarrow G(\mathbf{A}_f^p)$. What I do not give in the letter or conjecture in the paper is the specific trivialization of the twisting cocycle which leads to this imbedding. Recall that H is a twisting of $H^0 \subseteq G$. It would be interesting to do one or all of the following:

- (a) Find a conjectural form for the trivialization.
- (b) Prove that it implies the conjectures of my Corvallis lecture.
- (c) Prove the conjecture of (a).

I have not yet had the time or the courage to try any of them. Does it look possible to you? By the way, I agree with all the points of your letter although I have not been apprised of all details of the matter. The PUP will probably refuse to accept responsibility for the editor's neglect, but I hope Hsiang will put more pressure on it. His first thought was to get things moving quickly, but now he will have to marshal his forces.

I will see you at Rennes if not before.

All the best,

Bob

¹for $G = \text{Sp}$. The editors.

Compiled on December 22, 2023.