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On the automorphism group of a generic curve of genus >2

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It is our purpose here to prove the assertion made at the end of [2] to the effect that if $n>2$, then there exists a Riemann surface S of genus n having no non-trivial automorphisms (i.e., the only one-to-one conformal mapping of S onto itself is the identity). We believe this result is classically "well-known", but we should like to present a simple and complete proof based upon our recent results [1, 2] and on results of [3] and [4], making use of the fact that the dimension of the variety of moduli of Riemann surfaces of genus n is equal to $3n-3$. Certain of the results which we obtain from facts established in [2] might be proved in an elementary way, not depending on the theory of Chow forms and so on, but such elementary proofs, having little interest of themselves, do not seem worth presenting here.

In what follows, "open variety" will mean a Zariski open subset of a projective variety, and if A is any subset of projective space, A^* will denote its closure in the Zariski topology. Let Γ_n denote the group of $2n\times 2n$ unimodular, integral, symplectic matrices acting on the generalized upper half-plane H_n of degree n, and let K_m denote the subgroup of Γ_n leaving invariant the quotients of m^{th} order θ-zero values, as defined in [1] (here $8p|m$ for some odd prime $p>3$). Then K_m acts without fixed points in H_n and $H_n/K_m=V^{(m)}$ is (realizable as) an open variety. Moreover, there exists an open variety P_m and a regular mapping λ_m of P_m^*

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