

# On extendibility of a map induced by Bers isomorphism

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**Abstract.** Let  $T(S)$  be the Teichmüller space of a closed Riemann surface  $S$  of genus  $g(> 1)$ . Denote by  $U$  the universal covering of  $S$ , that is, the upper half-plane and denote by  $\dot{S}$  the surface obtained by removing a point from  $S$ . By Bers isomorphism theorem, we have a map from  $T(S) \times U$  to  $T(\dot{S})$ . It is known that the Teichmüller space  $T(\dot{S})$  is embedded in  $(3g - 2)$ -dimensional complex vector space. Thus the boundary  $\partial T(\dot{S})$  of  $T(\dot{S})$  is naturally defined.

Let  $A$  be a subset of  $\partial U$  consisting of all points filling  $S$ . In this talk, we show that the map of  $T(S) \times U$  to  $T(\dot{S})$  has a continuous extension of  $T(S) \times (U \cup A)$  into  $T(\dot{S}) \cup \partial T(\dot{S})$ . This is a joint work with Hideki Miyachi (Osaka University).