

## CLASSICAL SCHOTTKY GROUPS OF REAL TYPE OF GENUS TWO, II

Dedicated to Professor Tatsuo Fujiie on his sixtieth birthday

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**Abstract.** We consider three types of Schottky spaces which consist of non-Fuchsian classical Schottky groups of real type of genus two. This paper has the following two aims: (1) to represent the shape of the spaces by using multipliers and cross ratios of the fixed points of two generators of marked Schottky groups; (2) to determine fundamental regions for the Schottky modular group of genus two acting on the spaces.

**Introduction.** In spite of works by Akaza, Bers, Brooks, Chuckrow, Marden, Maskit, Rodriguez, Sato, Zarrow, and others, much less are known on Schottky spaces and Schottky groups in comparison with Teichmüller spaces. For example, the shape of Schottky spaces is hardly known even in simple cases (cf. Keen [11], [12], Sato [28]). It is important to consider Schottky groups and Schottky spaces in the following simple cases: (1) classical Schottky groups and classical Schottky spaces (cf. Brooks [4], Jørgensen, Marden and Maskit [10], Marden [14], Phillips and Sarnak [20], Sato [28] and Zarrow [31]); (2) Schottky groups and Schottky spaces of genus two related to discrete two-generator groups (cf. Matelski [17], Maskit [16], Purzitsky [21], Rosenberger [24] and Sato [30]).

In this paper we will consider classical Schottky groups and classical Schottky spaces of real type of genus two as a sequel to our previous paper [28], in which we classified the groups and spaces into eight types, and considered the groups and spaces of the first and fourth types. Schottky groups of the first and fourth types are called Fuchsian Schottky groups. Conversely, a Fuchsian Schottky group of genus two is either a group of the first type or of the fourth type (Marden [14], Sato [30]). Schottky groups of these two types were studied by Rosenberger [24], Purzitski [21], Matelski [17] and others in connection with discrete two-generator groups.

As far as we know, Schottky groups and Schottky spaces of the other types are hardly studied. In this paper we will consider the groups and spaces of the second, fifth and seventh types, which are related to each other. This paper has the following two

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