

## ON THE CONCRETE CONSTRUCTION OF HYPERBOLIC STRUCTURES OF 3-MANIFOLDS

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### § 1. Introduction.

In [3] Chapter 4, Thurston constructed a hyperbolic structure of figure eight knot complement by glueing together the faces of two ideal 3-simplexes which are in 3-dimensional Poincaré model of hyperbolic geometry. In this paper we shall show by illustration that this construction can also be applied to other knot complements and even to more general 3-manifolds whose Heegaard diagrams are given.

In § 1, we shall define the notion of nice triangulations of 3-manifolds. This definition is made entirely under the category of combinatorial topology, irrespective of geometric structure. The Nice Triangulation Theorem which asserts that every compact 3-manifold with boundary has a nice triangulation, shows that this notion is quite general.

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