## On the Rhyming of pre-Middle Chinese: a Statistical Study of the Verse in the Wèi-Jìn Period

by WONG, Tak Sum

## Division of Humanities

The Hong Kong University of Science and Technology

## Abstract

The phonological system before Middle Chinese has long been a mystery ever since the beginning of the study of Chinese historical phonology. The Qīng scholars were the pioneers who conducted systematic investigations into the phonological system of the history of Chinese. On the study of rhyming, descriptive statistics was usually applied to test the distinction between rhymes. However, simple comparison of a fixed threshold to the ratio of rhyming distinctions weakens the objectiveness of their study.

Previous studies have made tremendous contributions to the research on the rhyming categorisation by verse in pre-Middle Chinese, but different conclusions were often drawn from the same material since subjective experience was inevitably involved. Therefore, no objective standard is observed and thus controversies between different scholars always arise.

Recently, ZHŪ Xiǎonóng (1989) made use of inferential statistics and developed a scheme to study the rhyming in Northern Sòng Dynasty. In his study, proximity index was applied to determine the probability of indistinct rhymes. After that "t-test" was used to verify the result. By applying inferential statistics on the verse, not only can the corpus be used as circumstantial evidence, but concrete evidence. In this way, the valuable historical documents can be fully utilised.

In this research, a systematic investigation using an improved version of the methodology developed by Zhū was applied in the investigation of the rhyming categories in the Wèi-Jìn period so that the verse in this period can be strictly and fully utilised while the phonological system

reconstructed by the scholars can be verified with an objective measure.

The statistical results generally agree with Professor TING Pang-hsin's reconstruction. However, for a number of categories, it is found that the rhyming classes already started to separate in the Jin period, which was not observed by any previous studies.