

## Seminar SAW Seminar History and Philosophy of Mathematics – 2011-2016

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### History of the historiography of algebra

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*Western and Chinese Algebraic Methods in 19th Century Chinese Historical Works*

**Abstract** - At the beginning of 18th century, European algebra, *Jie genfang*, was transmitted into China by Jesuit missionaries. It was soon accepted by Chinese mathematicians. It is based on the study of European algebraic method, the old Chinese *Tianyuan* method was rediscovered, and the two methods were regarded as identical at the beginning. In the second half of the 18th century, in the context of research and publication of ancient works in China, most of old Chinese mathematical books became accessible to mathematicians and scholars. Aim at the fully understanding of ancient knowledge and texts, some Chinese mathematicians focus on the study of 13th century Chinese mathematical texts concerning *Tianyuan* algebra, even they fully understand the advantage of European algebra. However, they reach the result that Chinese methods have more advantage than the ones from Europe. at the beginning of the 19th century, there was a hot debate among Chinese mathematicians about the advantage and disadvantage of Western and Chinese algebraic methods. In this paper, I will focus on the following problems:

- 1) The context of the study of Algebra method in the 19th century China.
- 2) The attitude of Chinese mathematicians toward the algebraic method from Europe and China in historical works.
- 3) The attitude of Chinese mathematicians toward the theoretical knowledge unveiled in their study concerning algebra.