

# **Thirteenth-century Chinese mathematical texts and their pedagogical implications in the 21<sup>st</sup> century: The cases with *Suanxue Qimeng* and *Yang Hui Suanfa***

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*Suanxue Qimeng* (by Zhu Shijie) and *Yang Hui Suanfa* (by Yang Hui) are, among others, the two most important texts of mathematics which greatly influenced how *tongsan* (Korean mathematics) and *wasan* (Japanese mathematics) took their shape. Apparently this is the big issue to which historians of mathematics, especially those in East Asia, would pay a lot of attention to despite the fact that both traditions had already well developed on their own. On the other hand, by taking an HPM perspective, these texts can also be introduced into mathematics classes, either in a college liberal study program or in high school, in a very interesting way. In this presentation, I am going to take a few problems from these two texts and explain how HPM perspectives can shed new light to exploring their meanings (both mathematical and historical). As to how teachers implement these endeavors into their classes, I would recommend, as Masami Isoda suggests for the theme of the math education session, an approach underlying which hermeneutics plays a key role. By adopting this approach, teachers would firstly engage the students to read carefully the texts in the history of mathematics, then helped them to understand the meaning of the contents, and finally sought to make sense of the texts in terms of their historical contexts. In this connection, there is an analogy between teaching situations and historical context. Therefore, the teachers are encouraged to consult not only the students' cognitive issues but also the historical "stranger's" view of doing mathematics which is often difficult to follow. As a final remark, I will also draw upon the issue of how HPM and the history of mathematics can be beneficial to each other.