1035-01-558   **Jose A. Cervera*** (`joseantoniocervera@gmail.com`), Tecnologico de Monterrey, Campus Monterrey, Departamento de Estudios Humanisticos, Av. Eugenio Garza Sada, 2501, 64849 Monterrey, Nuevo Leon, Mexico. *The method for the extraction of square roots in Giacomo Rho's 'Chou Suan'.* Preliminary report.

The Jesuits Giacomo Rho (1592-1638) and Adam Schall von Bell (1592-1666) translated a huge number of European astronomical and mathematical treatises into Chinese between 1630 and 1635. The result was given the name 'Chongzhen Lishu' ('Calendar compendium of the Chongzhen era'). It was reedited in 1645 with the new name 'Xiyang Xinfa Lishu' ('Calendar compendium according to the Western new methods').

One of the mathematical treatises included in the 'Xiyang Xinfa Lishu' was the 'Chou Suan' ('Calculus with rods'), written by Rho in 1628. The 'Chou Suan' is the adaptation of John Napier's 'Rabdology' (1617). In this book, Rho explains how to multiply, to divide and to extract square and cubic roots using the rods method.

In this paper, I will give a general survey on Giacomo Rho's 'Chou Suan', and I will compare this book with Napier's Rabdology as a typical case of adaptation of European mathematics in China. I will focus on the method for the extraction of square roots, as an example in which the rods method appears to be especially useful. (Received September 10, 2007)

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