

International Conference on History of Ancient Mathematics and Astronomy

In Memory of Professor Li Jimin (1938-1993)

Algorithms in the mathematical sciences in the ancient world

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Critical perspectives on texts of algorithms in the ancient world

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The fruitful analysis of algorithms and their texts: some examples from the Sanskrit

Abstract – Sanskrit mathematical treatises (or chapters of treatises) are in the form of sūtras that mostly evoke algorithms. Are they descriptions of algorithms? Reflexions on them? Just mnemonic resumes?

In two case studies, one examining how same algorithms can be stated in very different ways (in the case of the extraction of square roots) the second observing how a given author (Āryabhaṭa (b. 476)) provides a wide variety of algorithmic statements, will show that an analysis of the way a text concerning algorithms relates to its execution can provide information on the author's point of view on the algorithm, the aim of his text and some clues to how the text itself may have been composed.