

The meaning of parts in mathematical texts.
The example of chapters in mathematical writings from ancient China

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The mathematical documents that we read have various types of parts, e.g., paragraphs, chapters, theorems, problems, examples, proofs, algorithms, and so on. Moreover, these parts are materialized in various ways, depending on several factors, and practitioners have devised all kinds of tools to circulate between these parts. In order to work within a given mathematical culture, a practitioner usually needs to know how to handle these tools, how to use these parts and the meanings attached to them. These may seem trivial issues. The talk aims at suggesting that they are more delicate than it may appear at first sight. The example chosen to illustrate the fact is that of “chapters” in ancient China. Most known mathematical writings composed in China between the 3rd century before the Common Era and the 7th century of the Common Era have no chapters. This is not the case of *The Nine Chapters on Mathematical Procedures*, as the title of the book probably completed in the 1st century CE makes clear. In the talk, I show that far from being a mere material decomposition of the content, these chapters have deep mathematical meanings and embody a research program that took other forms in subsequent centuries.