

**Meeting:** 1003, Atlanta, Georgia, SS 3A, AMS-MAA Special Session on History of Mathematics, I

1003-01-1011      **Wann-Sheng Horng\*** (horng@math.ntnu.edu.tw), 88 Section 4 Tungchou Road, 116 Taipei, Taiwan. *Papyrus versus Bamboo: A comparative study of ancient Egyptian and Chinese mathematical texts.*

This presentation will offer a comparison of the Egyptian Rhind Mathematical Papyrus and the Chinese Suan Shu Shu. The latter text, written on bamboo and dated no later than 186 BCE, was recently excavated in 1983/1984 from a former Han dynasty tomb. Both of these texts cover mathematical knowledge about arithmetic, algebra and geometry, and are devoted basically to solving problems by formulas or algorithms. Nevertheless, both of them also contain fascinating and sophisticated methods dealing with, for example, arithmetical operations on fractional numbers. By examining both texts carefully and critically, it is possible to reconstruct what the ancient Egyptians and Chinese had in mind in formulating such concepts as fractional numbers, and how these led them to manipulate calculations using fractions. With the help of comparative epistemology and methodology as well, it is possible to better understand both the ancient Chinese and the Egyptian texts as well. (Received October 02, 2004)