

## Department of Mathematics and Statistics

## Special Colloquium

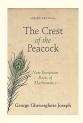


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Should we question the originality of John Wallis's generalization of the Pythagorean Theorem?

In Crest of the Peacock: Non-European Roots of Mathematics, George Gheverghese Joseph writes,



We may question the originality of John Wallis's Treatise on Angular Sections (1685), in which there are echoes of the works of Ptolemy (c. AD 100) and of Thâbit's generalization of the Pythagorean Theorem.

In this talk, we will look at Thâbit ibn Qurra's (836-901 CE) generalization of the Pythagorean Theorem and Wallis's (1616-1703 CE) version as well. We will also explore what resources Wallis may have had access to, and whether G.G. Joseph's allegation is plausible. In addition, we will look at how John Wallis derived his infinite product formula for  $\frac{\pi}{4}$  and how his contemporaries responded to this achievement.

**Keywords:** Pythagorean Theorem, Thâbit ibn Qurra, John Wallis, Infinite product formula, History of Mathematics.