

1046-01-299

**Glen R Van Brummelen\*** (gvb@questu.ca), Quest University, 3200 University Blvd, Squamish, BC V8B 0N8, Canada. *Trigonometry on the Edge: Interpolation in Ancient and Medieval Astronomy.*

As odd as it sounds, interpolation was a branch of trigonometry during the medieval period in India and Islam. It led a peculiar life on the fringes of mathematical astronomy, a mathematical helpmate, but at least in Islam, an over-shadowed sister to geometry. Some of the best scientists (al-Biruni and al-Kashi among them) made serious mistakes when trying to generate second-order schemes, but others (including Brahmagupta and Ibn Yunus) constructed conceptual mechanisms that led to equivalents of modern formulas. We shall examine how several authors conceived of their methods, and what they thought of them in relation to the entire discipline. (Received August 25, 2008)