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Clemency J Montelle* (c.montelle@math.canterbury.ac.nz), Department of Mathematics and Statistics, University of Canterbury, Private Bag 4800, Christchurch, 8140, New Zealand.
Parallel Insight, Priority, and Pre-eminence: John Napier, Joost Bürgi, and Famous Works on Logarithms.

'Logarithms' mused French mathematician Laplace almost two centuries after their inception, 'by shortening the labors, doubled the life of an astronomer'. Indeed, there has never been any doubt as to the importance of logarithms; a mathematical insight whose usefulness has persisted in different aspects to the present day. Within years of their introduction, they became indispensable for mathematicians, astronomers, navigators, and geographers alike. The question of their origins, however, is more contentious. At least two scholars, the Scottish mathematician John Napier and Swiss craftsman, Joost Bürgi produced proposals which embodied the logarithmic relation and within years of one another produced tables for its use. Both were motivated by removing the computational complexities of the various arithmetical operations involving large numbers that practitioners were facing; Napier saw this as 'troublesome to mathematical practice' and Bürgi sought to 'lift the difficulties'. But their proposals were in many ways fundamentally different. In light of this parallel discovery, I will compare the approaches and achievements of both scholars with an emphasis on Napier, and explore the issue of priority and pre-eminence in the history of mathematics. (Received September 20, 2009)