1077-01-556 **Richard L. Kremer*** (richard.kremer@dartmouth.edu), Department of History, 6107 Carson Hall, Dartmouth College, Hanover, NH 03755. *On Finding Times of True Syzygy in the Fifteenth Century: Melchion de Friquento's Eclipse Tables of 1437.* Preliminary report.

Computing the times and magnitudes of eclipses was undoubtedly the most complicated task in Ptolemaic mathematical astronomy. And within that task, finding the time required for the luminaries to move from mean to true syzygy proved most difficult since the apparent lunar and solar velocities change over the course of the month and year, respectively. As J. Chabas, B. Goldstein and I have shown, medieval mathematicians (Arabic and Latin) devoted considerable ingenuity to this problem, inventing iterative techniques, special single or double-entry tables, and graphic methods to approximate the changing velocities. In this talk I will analyze another novel approach offered in 1437 by the otherwise unknown Melchion de Friquento of Naples. Uniquely preserved in a Parisian manuscript, Melchion's tables betray both sophistication and confidence, extending as they do to the year 2007. (Received September 22, 2011)