Toke Knudsen* (toke.knudsen@oneonta.edu), Department of Math., Comp. Sci., and Stat., SUNY Oneonta, 108 Ravine Parkway, Oneonta, NY 13820. Jñānarāja's Critique of Bhāskarācārya's Siddhāntaśiromani.

Jñānarāja, an astronomer from Maharashtra, India, wrote an astronomical treatise, the Siddhāntasundara, around 1500 CE. It was the first major work to appear after the Siddhāntaśiromaṇi of Bhāskarācārya from 1150 CE, well known for its depth and comprehensiveness. Writing at the beginning of the early modern period, Jñānarāja was perpetuating an ancient tradition of astronomy while addressing the needs of his times. While influenced by the Siddhāntaśiromaṇi, especially by the idea of vāsanā (mathematical demonstration), Jñānarāja was also critical of some of its assumptions and formulae. For example, Jñānarāja rejects a particular formula because it breaks down on equinoctial days, producing the mathematically meaningless result 0/0. The talk will focus on Jñānarāja's use and critique of Bhāskarācārya's Siddhāntaśiromaṇi. Attention will be paid to the different times and milieux of the two astronomers in shaping their treatises. (Received September 13, 2014)