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Creating Mathematics Textbooks in the Thirteenth Century: The Case of Nasir al-Din al-Tusi and Aristarchos of Samos

Aristarchos of Samos was a Greek astronomer who worked in the early third century B.C. and wrote a treatise on the sizes of the sun and moon and their distances from the earth. About a century and a half later, beginning with the work of Hipparchos of Rhodes, astronomers began to develop simpler ways of solving the questions that Aristarchos addressed in his treatise. This work continued through Ptolemy some 300 years later, and reached new heights with the trigonometry developed by Islamic astronomers in the 10th century. Yet, in the 13th century, Nasir al-Din al-Tusi, who was well up on the mathematics of his day, produced a new edition of Aristarchos's work that completely ignored all these intervening improvements. Why, and how, Nasir al-Din did this, will be the subject of our talk.

The talk represents joint work with Dr. Nathan Sidoli.