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Kim Plofker* (kim_plofker@alumni.brown.edu). *The mathematics of eclipse diagrams in Sanskrit astronomy.*

One of the few details we know about the professional incentives of medieval Indian mathematician-astronomers is that it was important to them to predict eclipses. The *parilekha* or eclipse diagram was a crucial part of this particular form of “public engagement with science”, and depended on several ingenious mathematical techniques in areas ranging from simple trigonometry to numerical approximation. This talk discusses how such diagrams were devised and used to showcase the professional achievements of mathematicians. (Received September 25, 2018)