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Eisso J Atzema* (atzema@math.umaine.edu), Department of Mathematics & Statistics,
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the Early 17th Century Dutch Republic*. Preliminary report.

By the beginning of the 17th century, trigonometry had become a highly standardized field of study. Particularly, there were hardly any remaining questions regarding the principal goal of trigonometry, i.e. the “solution” of triangles. Some mathematical practioners, however, thought about possible extensions of the traditional range of trigonometry. Specifically, they wondered how and to what extent the trigometric functions could be used for the “solving” of quadrilaterals and other polygons. In this talk I will discuss the forays of a small group of Dutch mathematicians into the study of quadrilaterals and how their work fits in the various problem-solving traditions of the era, both in the Netherlands and abroad. Notably, I will talk about the work of Simon Stevin, Ludolph Van Ceulen, Willibrord Snell, and Albert Girard on the subject. (Received September 07, 2007)