

Meeting: 1003, Atlanta, Georgia, MAA CP E1, MAA Session on Mathematics in the Islamic World

1003-E1-482 **Kenneth Manders*** (mandersk@pitt.edu). *Ibn Al-Haytham on geometrical analysis and synthesis*. Preliminary report.

Pappus' *Collectio* is our main Greek source on the ancient tradition of geometrical analysis, which provided the most powerful intellectual resource for the high points of ancient Greek geometry in Archimedes and Apollonius. Pappus' descriptive comments, however, are very brief and their interpretation has vexed 20th-century scholars. From the Islamic world, however, we have much more elaborate explanations and philosophical discussions of geometrical analysis, notably in a treatise by Ibn Al-Haytham. The presentation will discuss what we can learn about geometrical analysis by taking this Arabic source into account. (Received September 16, 2004)