1067-01-1079 **Jesper Lutzen*** (`lutzen@math.ku.dk`), Jesper Lutzen, Department of Mathematical Sciences, University of Copenhagen, DK-2100 Copenhagen O, Denmark. *The Quadrature of the Circle: 17th century impossibility arguments.*

The classical problem of the quadrature of the circle remained a lively issue during the 17th century. Several solutions were proposed but none of them were generally accepted. On the contrary, several leading mathematicians argued mathematically that the problem was impossible in some sense. The idea of giving mathematical proof of the impossibility of the problem was a new feature in the long history of the problem and deserves special attention. In the talk I shall list various versions of the problem as it was conceived during the 17th century, and discuss why impossibility arguments began to occur at this time. The discussion will involve an analyze three of the impossibility proofs put forward by James Gregory, Isaac Newton and Gottfried Wilhelm Leibniz. (Received September 18, 2010)