Geophysical Research Abstracts, Vol. 9, 01195, 2007 SRef-ID: 1607-7962/gra/EGU2007-A-01195 © European Geosciences Union 2007



## Is the Earth's Moon a planet?

K. Seiferlin (1), R Ziethe (1) Physikalisches Institut, Universität Bern

The currently ongoing discussion about how to define the term PLANET reminded us of an article that was first published in 1963 by the famous science fiction author and physicist, Sir Isaac Asimov. The article, however, failed to attract the attention of the scientific community. Asimov argued that the Moon can be counted as a full planet of its own right and not as one of many natural satellites. We adopt Asimov's view and partly summarize, partly extend his work. The original paper did not contain any figures and considered the solar system as it was known in the early 60s of the last century. We complement the topic with an updated satellite population and with figures that illustrate some of the facts much better than tables. Furthermore, we complement the discussion by considering the Hill sphere as the criterion whether or not a satellite is gravitationally bound to its primary - Asimov used a different, much weaker criterion. We furthermore discuss two more characteristic distances from a planet that were not considered by Asimov, but tell a lot about the nature of a satellite. It turns out that the Earth's Moon is either an irregular satellite or a Planet, but certainly not a regular satellite. Our work also shows the difficulty to classify celestial objects, because any categories are man-made, and nature does not make objects with proper labels sticked to them.