Low-cost parabolic antenna for Radio astronomy

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Radio galaxy observation is made with high-cost receiver antennas which are hard to transport.

In 1970, Taggart and Janky designed an antenna which reduces costs of manufacture notably and also solves transport problems since a locally-assembled antenna with a reduced cost and made of materials easy to find is obtained.

Due to the abovementioned benefits, the antenna reduces its efficiency minimally due to phase errors since it has a decagon as a perimeter not a circle which causes that as a surface no perfect paraboloid exists (see picture 7).

This project is mainly purported to implement a low-cost, locally-assembled antenna of easy-transportation. It will be used in receiving signals emitted by radio sources with academic purposes, mostly in Spatial Sciences courses and for student training, in the course of Science and Spatial Engineering of the Department of Engineering.