Figure 1: Regular pentagonal tiling of the hyperboloid shell

On a surface of constant negative curvature, a regular pentagon exists with four right angles which can be used to tile the surface as it is sketched by the shell. In the base plane, the central projection of the shell is seen which maps the geodesic sides of the pentagons into straight lines (Klein's model of non-euclidean geometry). The length of the sides of regular pentagons with five right angles is equal to $\sinh \phi = \sqrt{(1 + \sqrt{5})/2}$.

Plane stereographic projections of such tilings are shown by the "limit circles" of M.C.Escher.