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NON-EUCLIDEAN GEOMETRY IN THE MODELING OF MODERN ARCHITECTURAL FORMS

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In searching of inspiration in the development of spatial architectural structures, it is very important to analyze the relationship between the structural elements in space.Digital tools used in non-euclidean geometry allows to createbionical and chaotic structural forms in design.In the age of generative design methods, it is possible to model spatial structures in either hyperbolic geometrynor elliptical.In searching for a new trends, architects use e.g. fractal geometry, Klein geometry or Mobius model to get more fascinating and optimal shape of structural forms.

This paper describe selected non-Euclidean geometric models which are currently used in generative design processes of structural forms in architecture.