SIDE 14.2

SIDE
Symmetries and Integrability
of Difference Equations

Contribution ID : 16

A Truss Structure with Mechanical Optimality, Integrability and Artisiticity
Wednesday 21 Jun 2023 at 10:15 (00h30')

Content :
We report that a class of integrable discrete holomorphic functions can generate planar truss structures with a certain mechanical optimality called the Michell structure, well-known in the area of architecture. Further, the discrete planar curves formed by the edges are nothing but the discrete analogue of the logarithmic spiral which is a special case of the discrete log-aesthetic curves. Discrete log-aesthetic curves are integrable discrete analogue of the log-aesthetic curves, which is known as a class of planar curves with built-in aesthetic nature, and those curves are invariant curves with respect to integrable deformation of planar curves in similarity geometry.

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Session classification : Non-linear waves

Track classification : --not yet classified--

Type : --not specified--