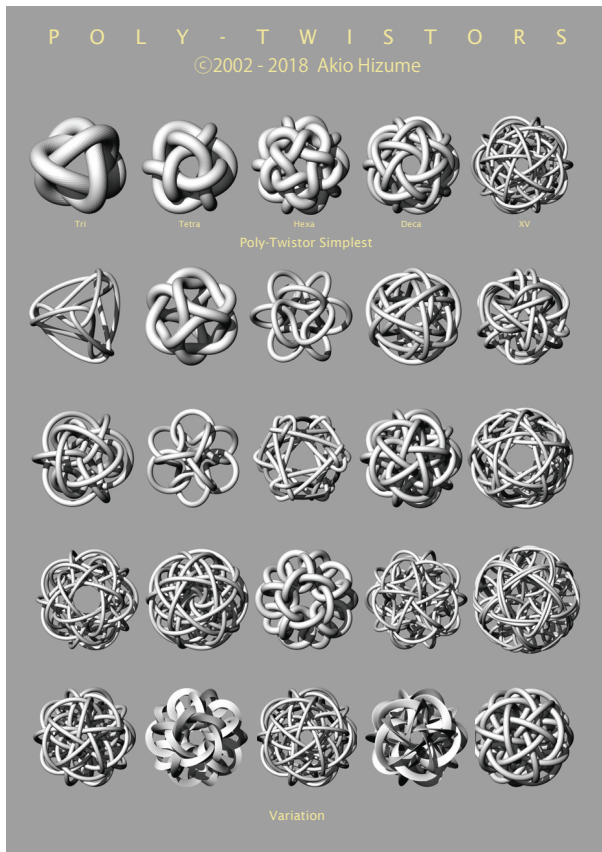




Recent Geometric Sculpture

by Akio Hizume

The "Poly Twistor" series of works is a three-dimensional integration of helical tori without intersections, according to the symmetry of regular polyhedra. The whole catalog was my exchange gift in G4G13 (updated in Jan. 2018).

I have already made over 50 different models on 3D printer. It is a formative study of the "three-dimensional torus" in topology.

I have concluded that 3D tori can be classified into five main types, eight more strictly, and 16 if all mirror images are included and counted.

It may be a form of explanation of the global structure of the universe as hinted at by Poincaré, and the precession of elementary particles.

The Poly Twistor model has the potential to request a new paradigm of physics.

Whole Catalog



http://starcage.org/poly-twistors_s.pdf

Youtube Movie



<https://youtu.be/L11CZEWHPHo>



I have created giant quasi-crystal sculptures "MU-MAGARI" in Chichibu, Innsbruck, Zurich, Atlanta, Tokyo and Sao Paulo. They were always temporary exhibitions.

Finally, in 2022, I created my latest work as a permanent public sculpture at TAKE Labo, Ube, Yamaguchi, Japan.

Natural bamboo is usually individual and uneven. Taking advantage of this unevenness, I decided to try to construct a hyperbolic spatial arrangement of MU-MAGARI.

By placing the bamboos thinner in the centre and thicker on the periphery, the bamboos tend to curve slightly and the parallel lines become separated from each other. This is reminiscent of the nature of 'hyperbolic space'. The dodecahedral symmetry and curvature together create a stronger cohesion. It has 520 poles and is self-supporting.



Following on from giant quasi-crystal sculpture, I have created another giant bamboo structure at the TAKE Labo in 2023.

The Fibonacci Tunnel has been created many times before in Kyoto, Tokyo, Osaka and Los Angeles, but this time it is not a temporary installation but a permanent exhibition.

A double-helix tunnel based on a phyllotaxis. It consists of 200 bamboo poles. The diameter of tunnel is 3m and total length is about 8 m.

Youtube Movie



<https://youtu.be/KOQVLMIAktw>