Motivation behind the Construction of Maximal Twistable Tetrahedral Torus

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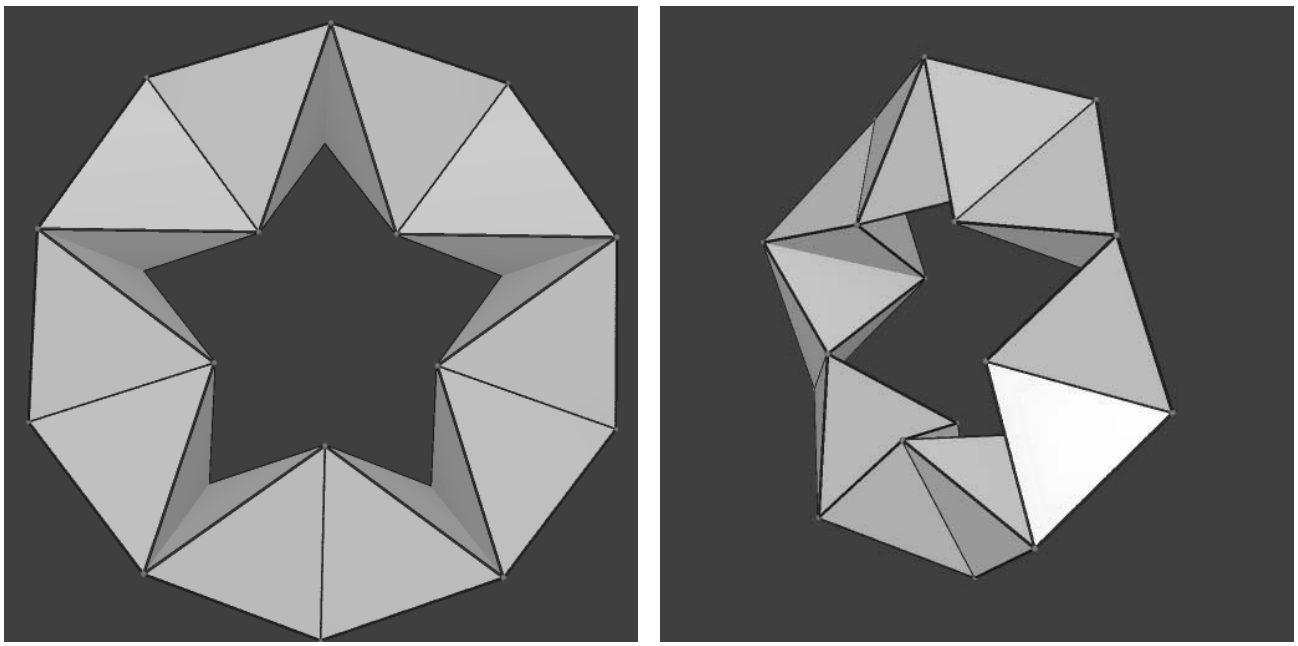
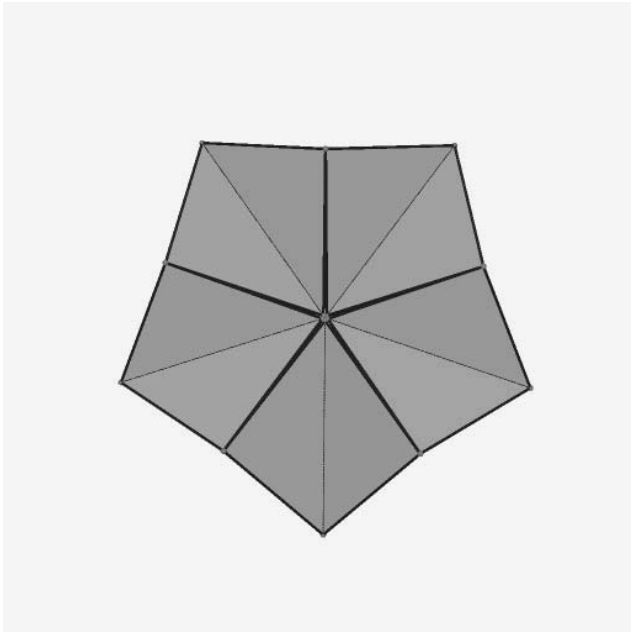
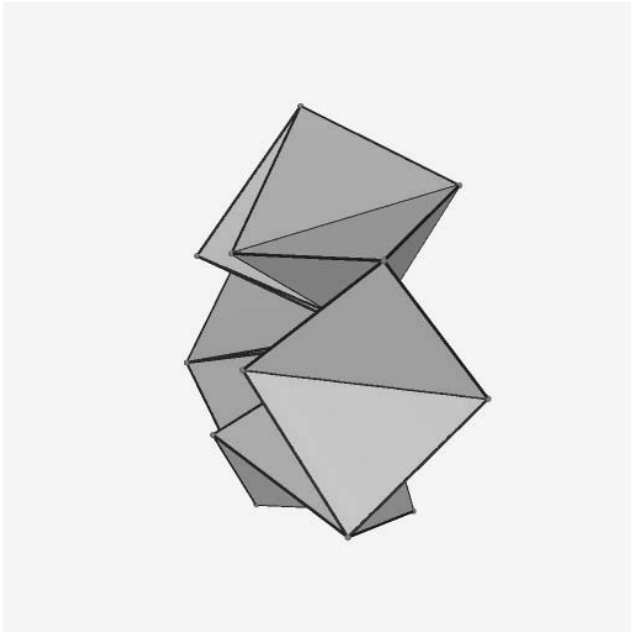
Abstract: *In the fascinating book "More Mathematical Activities" Brian Bolt supplies a net for a rotating ring of six tetrahedrons. Based on this net, the model forming a twistable tetrahedral torus can be constructed with patience. In this talk we are to show how such a model can be built with Cabri-3D. With the magic supplied by the dynamic geometry software we are to show how ALL such models can be constructed.*

Twistable Tetrahedral Torus formed with 10 Regular Tetrahedrons

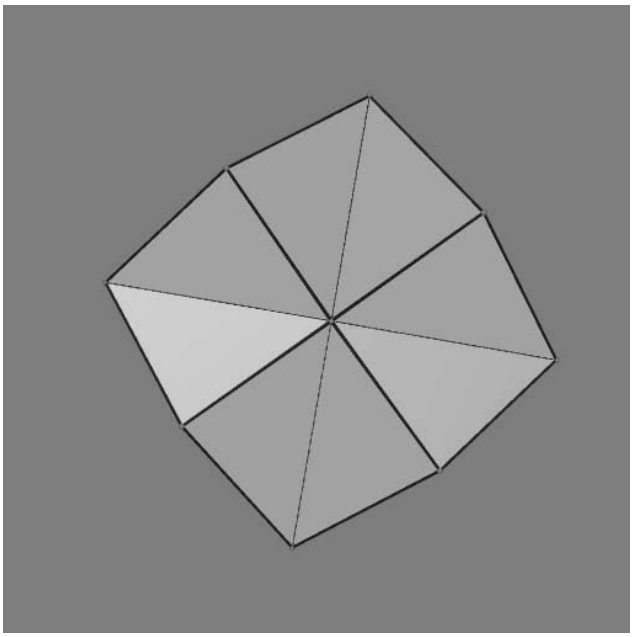


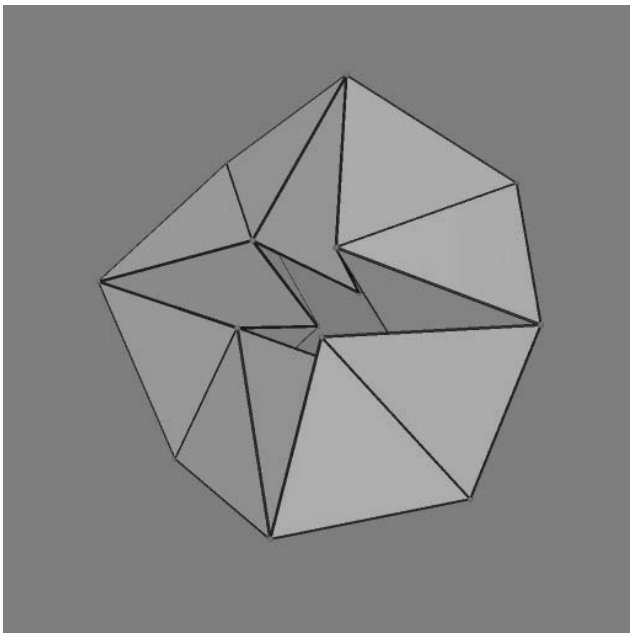
Maximal Twistable Tetrahedral Torus Formed with Ten Tetrahedrons



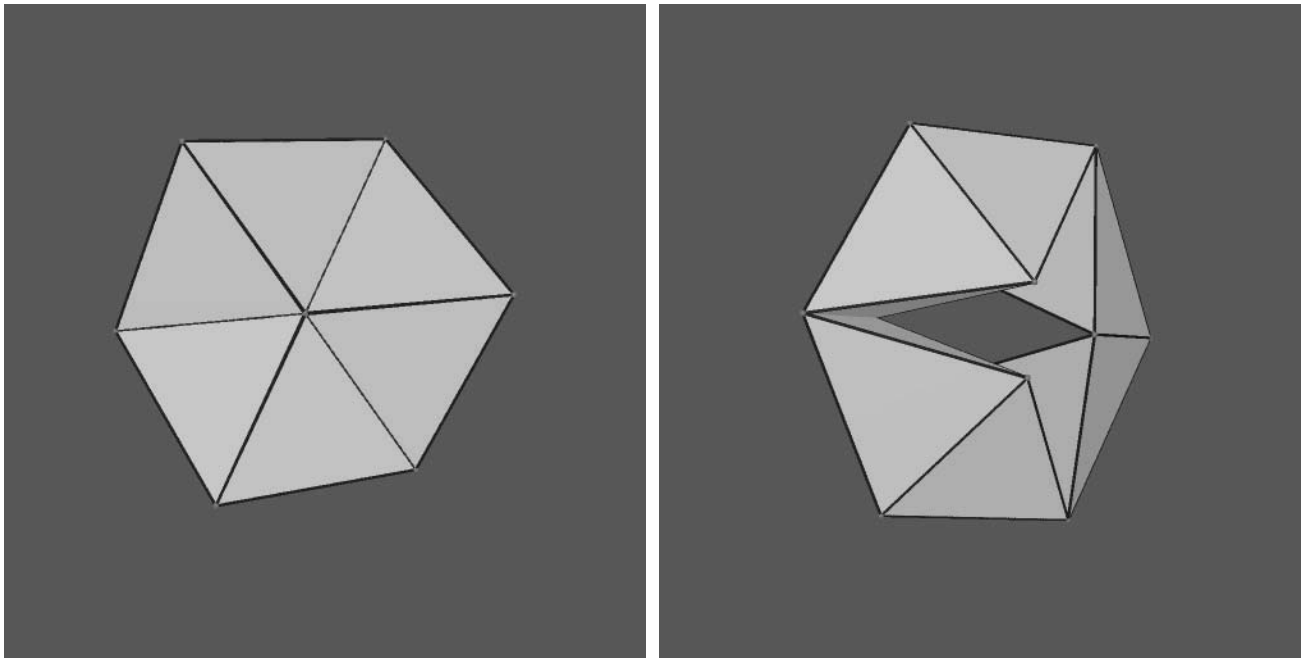


Maximal Twistable Tetrahedral Torus Formed by Eight Tetrahedrons

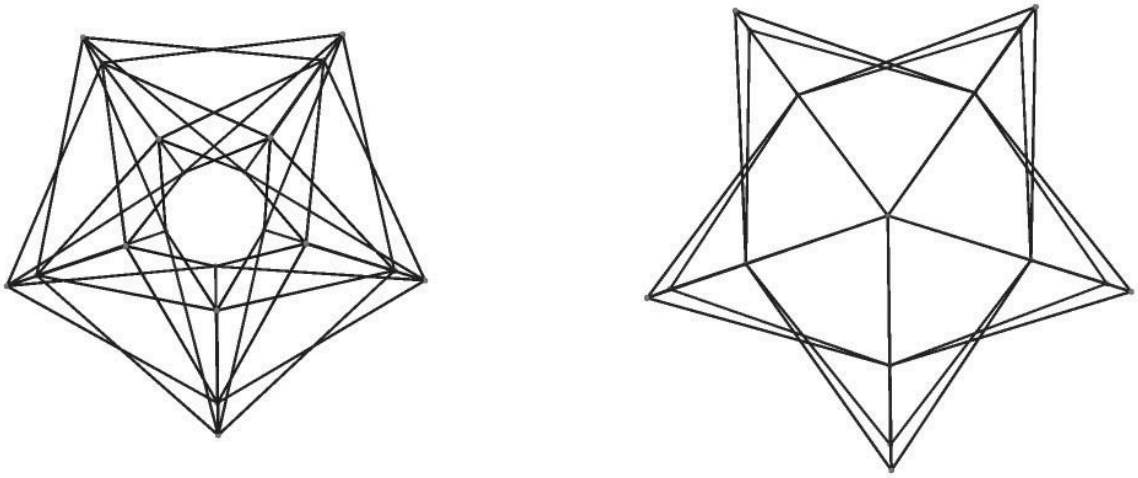




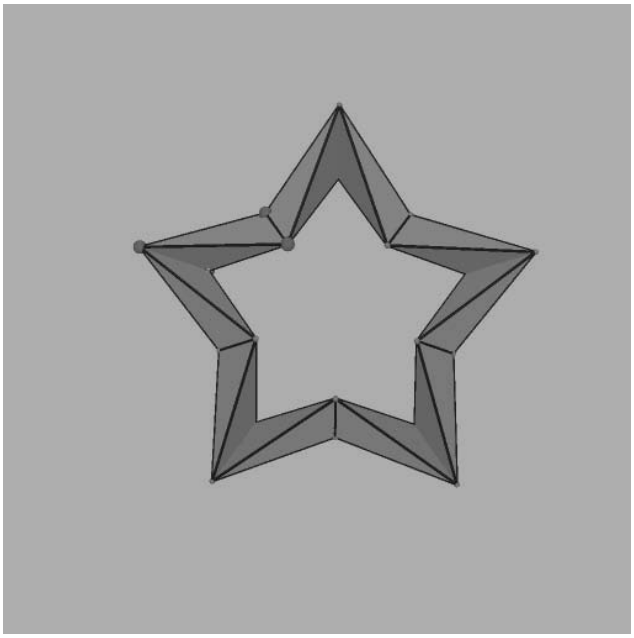
Maximal Twistable Tetrahedral Torus Formed with Six Tetrahedrons

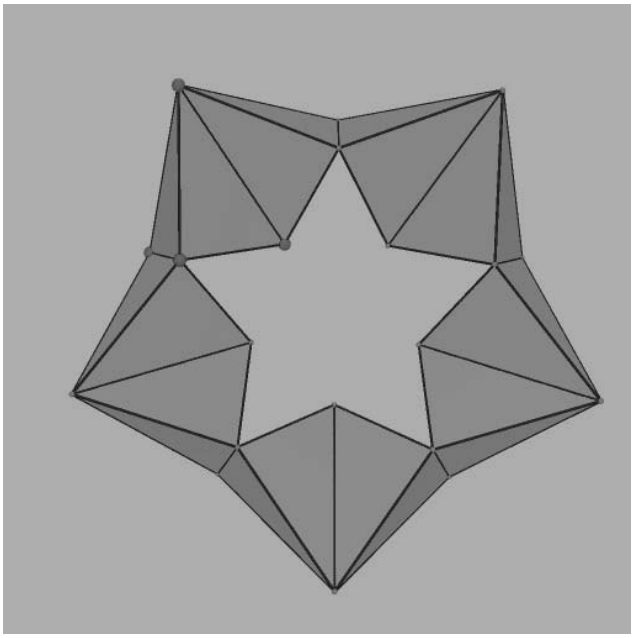


Linkage ? Kaleidoscope?



All Possible Twistable Tetrahedral Tori formed with 10 Tetrahedrons





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[2] Brian Bolt, More Mathematical Activities, CUP, 1985, 20-22.

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