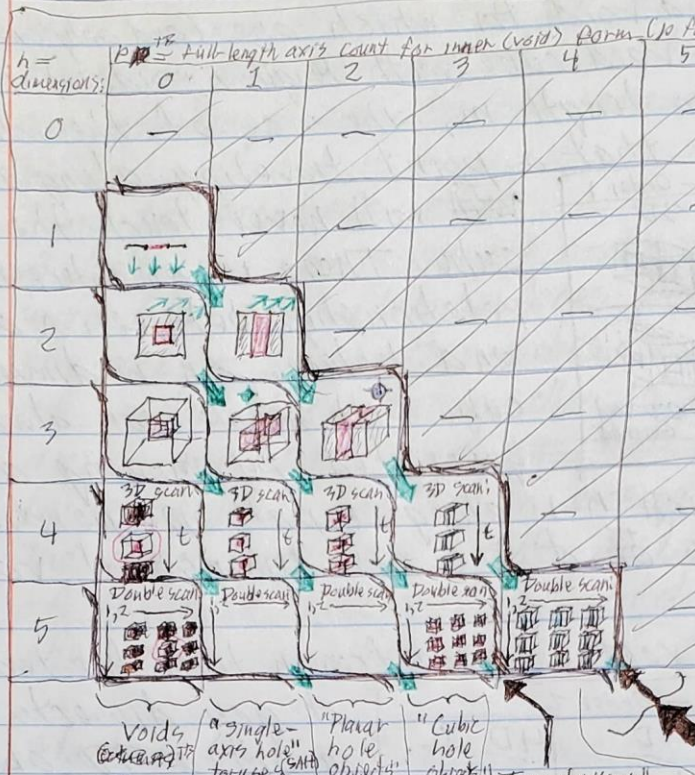
2007-11-04.11:18 Sun. – 4D Circulations [11:22]



Voids (Extraneous) TB
- Inner void area never make contact with the surface

15:46 Inner Void Objects (IVOs)

"Single-axis hole" toruses (SAH)
- Not radially symmetric, except...
- In 3D, where the SA.H toruses and true toruses intersect. Rename: Linear Hole Objects, LHOs

"Planar hole objects" (PHOs)
- In 4D, two "very thin" ones, I, may be able to rotate independently around the same center.

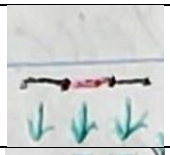
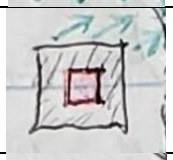
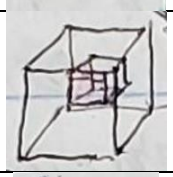
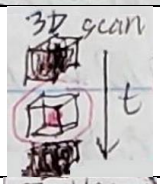
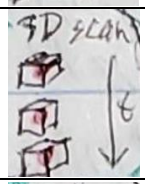
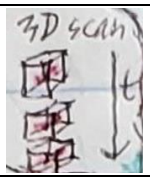
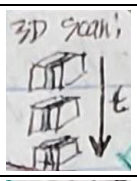
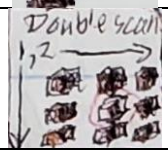
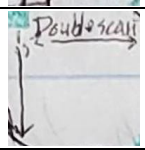
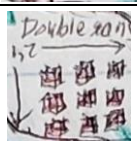
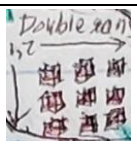
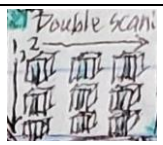
"Cubic hole objects" (CHOs)
- Only exist in 4D and above.

"True toruses" (all radially symmetric under single-plane rotation)
- Number of "axes of rotation" needed increases by one with each added dimension
- Rotation occurs around: a point (h=2), line (h=3), square (h=4), cube (h=5).

(True Torus objects, TTOs)

This chart shows that great care must be taken in generalizing to higher dimensions. In particular, there are two distinct ways to define a torus. The True Torus objects (TTOs), which are defined by starting with a Saturn-ring geometry planar void and generating new objects in higher dimensions, [15:24]

2007-11-04.11:18 Sun - 4D Circulations [11:22]

n = dimensions	p = full-length axis count for inner (void) form (p for "penetrating" axis					
	0	1	2	3	4	5
0						
1						
2						
3						
4						
5						
	Voids * Inner void area never make contact with the surface 15:46 Inner Void Objects (IVOs)	"Single-axis hole" toruses (SAH) * Not radially symmetric, except… * In 3D, where the S.A.H toruses and true toruses interest. Rename: Linear Hole Objects, LHOs	"Planar hole objects" (PHOs) * In 4D, two "very thin ones, ⊥, may be able to rotate independently around the same center	"Cubic hole objects" (CHOs) * Only exist in 4D and above.	\ "True toruses" (all radially symmetric under single-plane rotation * Number of "axes of rotation" needed increases by one with each added dimension * Rotation occurs around: a point (n=2), line (n=3), square (n=4), cube (n=5). (True Torus Objects, TTOs)	\ "Splits" (2 objects) 14:45 TB "Fully split Objects, FSOs"

This chart shows that great care must be taken in generalizing to higher dimensions. In particular, there are two distinct ways to define a torus. The True Torus Objects (TTOs), which are defined by starting with a Saturn-ring geometry planar void and generating new objects in higher dimensions. [15:24]

Terry Bollinger 2007-11-04.14:14 Sun