Subject: Tamfang's abstractions
Posted by Tamfang on Tue, 19 Jun 2012 06:15:15 GMT
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Since 1981 I've lived near the Pacific coast of North America.

In 1997 I started using PoV-Ray to make mathematical abstractions.
Lately I've been doing my stuff mostly in Python.

In 2008 or 2009 I saw the Shapeways booth at a Maker Faire.

Each of my models comes from a Python program that builds a mesh in three formats simultaneously: in Visual Python (so I can move around for a better look), as a .POV file (for a permanent image), and in .OBJ (to send to Shapeways).

I have ideas for numerous designs based on uniform polychora (4-dimensional polytopes), but I lack the technique to generate the copies (up to 14400!) of a unit cell and tie them together properly.

Subject: Re: Tamfang's abstractions
Posted by tessman on Wed, 20 Jun 2012 16:53:59 GMT
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Ah, uniform polychora! Perhaps OpenSCAD would be useful? It's programmatic, and I've had some success translating my POV-Ray models into it, making allowances for the printing rules, of course.

Subject: Re: Tamfang's abstractions
Posted by Tamfang on Thu, 21 Jun 2012 06:21:53 GMT
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It's not obvious to me how one modeler would be more useful than another. Or is there one that can work in four dimensions (or in curved 3-space), whose toolbox includes "repeat with polychoral symmetry"?