
Subject: Quaternion julia set [math art]
Posted by [RogerN](#) on Wed, 15 May 2013 00:28:10 GMT
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Well my 2nd model has arrived, and I love the appearance after painting it. I applied a single coat of acrylic paint with a metallic finish - no primer was necessary.

Quaternion Julia Set

The mesh was generated by a custom C# program and then cleaned up a bit using Blender. Frankly I could go broke printing all the fractals I'm interested in... I've love to set up a shelf or two with nothing but mathematical art.

The biggest challenge I encountered was generating a nice mesh from a 3D isosurface which doesn't exceed the maximum number of vertices... I'm using a marching cubes algorithm for creating the mesh, and one of the downsides is that it uses the same vertex density all over rather than where you really need the detail.

File Attachments

1) [top_view_1.jpg](#), downloaded 239 times

Subject: Re: Quaternion julia set [math art]
Posted by [lensman](#) on Fri, 17 May 2013 11:46:54 GMT
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Very nice. What size is that and what acrylic spray in particular did you use?

Subject: Re: Quaternion julia set [math art]
Posted by [RogerN](#) on Fri, 17 May 2013 18:09:32 GMT
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It's 3.5 inches long. The paint was not a spray, just a \$2 bottle of acrylic from the local craft store. It's a metallic champagne color, Folk Art brand.

Subject: Re: Quaternion julia set [math art]
Posted by [GarySG](#) on Fri, 17 May 2013 18:42:44 GMT
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You mentioned using Blender to touch up the models and that your models had too many polygons where it wasn't necessary. In the latest version of blender, when you go into sculpt mode, and turn on topology, there is an option to decrease the polygon count in only the areas you brush over. Just thought I'd let you know

Subject: Re: Quaternion julia set [math art]
Posted by [lensman](#) on Fri, 17 May 2013 20:15:01 GMT
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RogerN wrote on Fri, 17 May 2013 18:09It's 3.5 inches long. The paint was not a spray, just a \$2 bottle of acrylic from the local craft store. It's a metallic champagne color, Folk Art brand.

Wow, even more impressive. I'm familiar with that brand and wasn't aware one could get this quality from it.

Subject: Re: Quaternion julia set [math art]
Posted by [Ray716](#) on Mon, 20 May 2013 15:42:28 GMT
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You can also retopo your model after you get the sculpt done. That way you can reduce the poly count to a manageable level.

Ray
