

For immediate release:

Archimedes Chiral featured on the catalog cover for the Joint Mathematics Meeting Art Exhibit
January 2, 2013, Arlington, MA

Boston area artist Regina Valluzzi will have an ink drawing featured on the cover of the 2013 Joint Mathematics Meeting art exhibit catalog. The art exhibit is part of the joint mathematics meeting in San Diego, CA from January 9-12 2013.

A resident of Arlington, MA, Dr. Valluzzi often uses the pseudonym "The Nerdly Painter". Her art refers to ideas and imagery from the the Physical Sciences and Mathematics, driven by her years in scientific research. The drawing selected for the catalog cover, "Archimedes Chiral", combines the Mathematical geometry of the Archimedes spiral with the Physics and Chemistry idea of handedness or "chirality". Chirality is a principle that occurs in physics, but which is also a very important challenge in Chemistry. Archimedes chiral was one of two works by Valluzzi included in the art exhibit at the joint Mathematics Meeting. Both are viewable in the online version of the mathematical art exhibit.



Archimedes Chiral by Regina Valluzzi, featured on the catalogue cover of the 2013 Joint Mathematics Meeting Art Exhibit and on the cover of the April 2013 issue of "Focus", the magazine for the American Mathematical Association. Hand drawn on acid free paper using art marker and fine point pens.

Valluzzi's work in the exhibit

<http://gallery.bridgesmathart.org/exhibitions/2013-joint-mathematics-meetings/rvalluzzi>

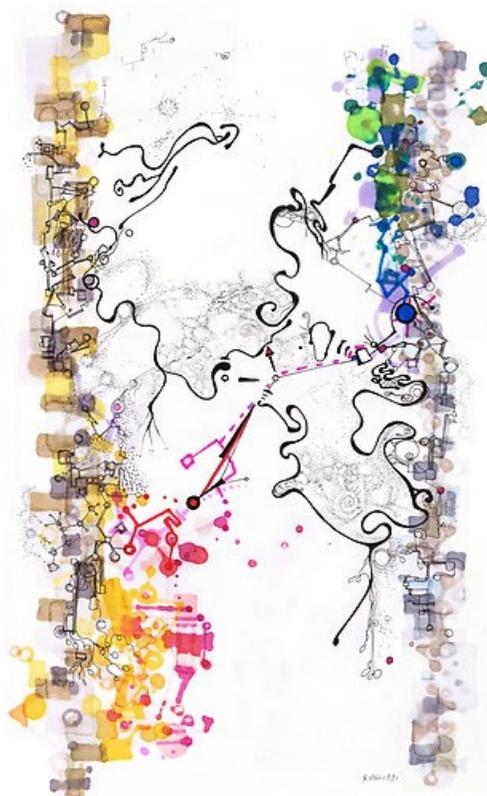
The whole exhibit

<http://gallery.bridgesmathart.org/exhibitions/2013-Joint-Mathematics-Meetings>

In Archimedes Chiral, the colorful confetti Spiral forms a background that has a handedness. One can imagine a

mirror image spiral twisting in the opposite direction. Intricate black ink fine lines and stippled textures weave through and over the colorful spiral. The combination of the large handed spiral and the spiraling patterns in the tiny fine black line drawing is reminiscent of the chirality problem in Chemistry and Biochemistry. Chiral molecules (also called enantiomers) are identical in every way except that they are mirror images. A handed environment, like the large colorful spiral, is used to distinguish differences between handed chiral molecules.

The other drawing by Valluzzi in the Mathematical Art Exhibit is titled "D-Branes". D-Branes is a fanciful depiction of a mathematical object used in String Theory, an advanced branch of Cosmology. Both drawings are part of a larger series of ink on paper works exploring the semiotics of scientific graphics and technical diagrams. They explore how information is communicated or excluded when science is visualized, and are inspired by her own work illustrating research concepts.



D-Branes, by Regina valluzzi, refers to the mathematical tools used to describe features of String Theory. Hand drawn pen and ink with art marker, 11 x 14 inches.

The Mathematical Art Exhibition is organized by Robert Fathauer, Nathaniel A. Friedman, Anne Burns, Reza Sarhangi, and Nathan Selikoff. The annual exhibit features works in various media by artists inspired by mathematics and by mathematicians fascinated by art's communicative power. Contributors from all over the world compete for spots. The exhibit typically showcases a variety of media from traditional painting, drawing and sculpture to digital images and 3-D printing, to beadwork and crochet.

http://jointmathematicsm meetings.org/meetings/national/jmm2013/2141_otherorg#art
<http://jointmathematicsm meetings.org/jmm>

Dr. Valluzzi received BS's in Materials Science and Humanities from the Massachusetts Institute of Technology (MIT) and a PhD in Polymer Science from the University of Massachusetts Amherst. She has been a researcher in industrial chemistry, green polymers, biomaterials, and protein physics, a Tufts faculty member, a start-up founder and an artist. Her website [The Nerdly Painter \(http://www.NerdlyPainter.com\)](http://www.NerdlyPainter.com) features articles on the science of paint and artist updates. She has won numerous awards for her science-inspired art. Currently, she has a painting on loan to the Materials Science Department at MIT, plus ongoing and upcoming exhibits at the Schwamb Mill in Arlington MA (<http://www.oldschwambmill.org/>), 100 Market Street in Portsmouth NH, and the

Annamarie Sculpture Garden and Art Center in Solomons MD
(<http://www.annmariegarden.org/annmarie2/content/glitz-art-sparkles>). Her most recent work focuses on ecological science themed works that update the Tree of Life motif, bringing it into a modern context.

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