Math journal puts Rauzy fractcal image on the cover

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Edmund Harriss, assistant clinical professor of mathematics

An image created by geometer Edmund Harriss made the cover of the mathematics journal *Notices*, published by the American Mathematical Society. The image, created in collaboration with Bill Casselman, appeared on the August 2014 edition (Volume 61 Number 7). It shows a

stepped path winding through space with the corners of the path projected onto a plane. On the plane each type of corner lives in its own region. The collection of these regions is the Rauzy Fractal.

In the same issue, his work with French mathematician Pierre Arnoux, was published in a complementary article "What is a Rauzy Fractal?" in the reoccurring "WHAT IS a ..?" column. This section offers brief, nontechnical descriptions of mathematical objects being used in contemporary research.

Rauzy fractals are a beautiful collection of self-similar shapes. The fractal as a whole can be divided into pieces in such a way that each piece can be created with smaller copies of the pieces. Their study is related to finding efficient algorithms for pixelating lines in 3d and to the mathematics of quasi-crystals, as well as many questions in mathematics.

"Dr. Harriss is a unique communicator of mathematics and mathematical research," said Chaim Goodman-Strauss, chair of mathematical sciences. "His wide-ranging interests and interdisciplinary collaboration across campus and the broader community are a strong asset for the department, university and region."

Credit: American Mathematical Society.

Harriss is an assistant clinical professor of mathematics in the J. William Fulbright College of Arts and Sciences. His work in geometry, tilings and patterns have appeared in such publications as *Nature*.

Notices is the world's most widely read magazine aimed at professional mathematicians with a readership of 30,000 individuals worldwide.

More information: The *Notices* issue is available online: www.ams.org/notices/201407/201407-full-issue.pdf

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