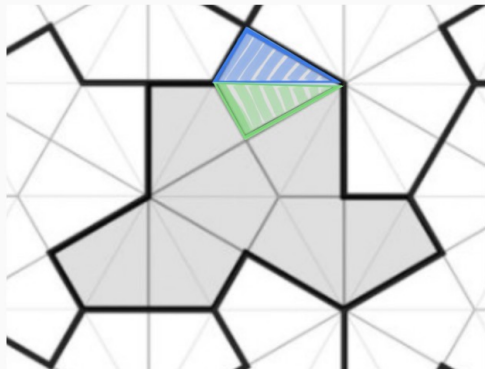
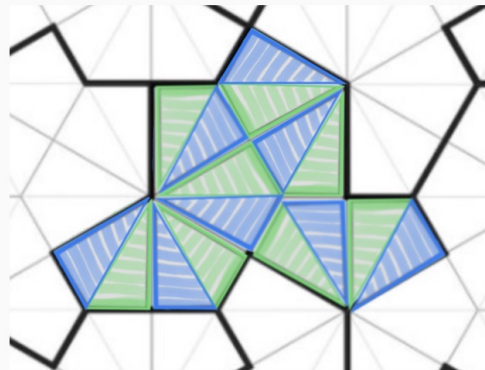


Aperiodic Monotile

1

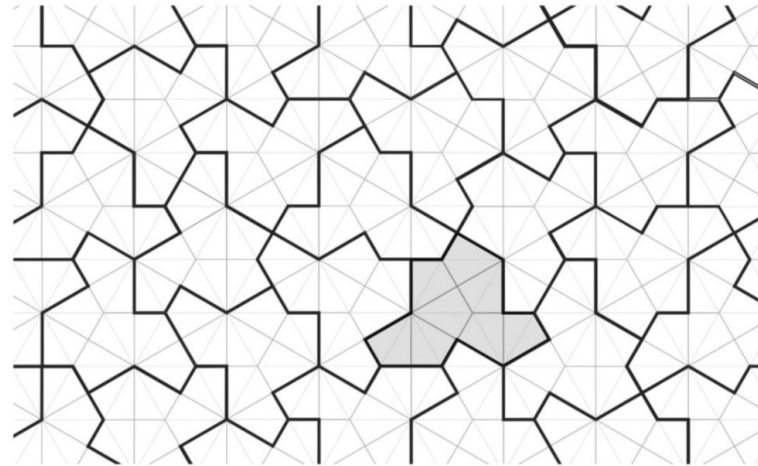


2



mathhombre

David Smith et al.



Aperiodic Monotile

Super big news from this lot. ([ArXiv](#))

AN APERIODIC MONOTILE

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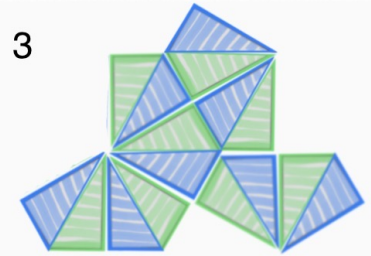
²Cambridge, UK
jsm@polyomino.org.uk

³School of Computer Science, University of Waterloo, Waterloo, Ontario, Canada
csk@uwaterloo.ca

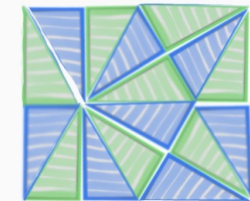
⁴National Museum of Mathematics, New York, New York, U.S.A.
University of Arkansas, Fayetteville, Arkansas, U.S.A.
chaimgoodmanstrauss@gmail.com

A monotile that admits no periodic tilings, but uncountably many aperiodic tilings. WOW.

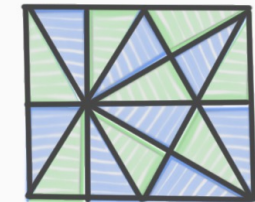
3



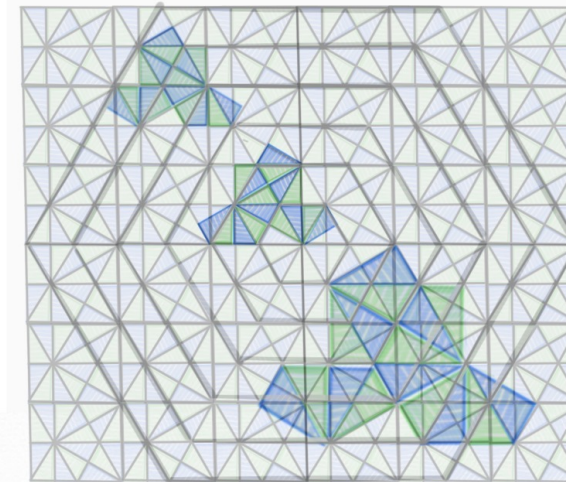
4



5



6



“The gray “hat” is an “einstein”, an aperiodic monotile.” The 16 triangles act like a fractal in that their rearrangement forms a rectangle that when reiterated, reproduces the initiating hexagonal field that can be completely tiled in a number of ways by the same “einstein”-“hat” of polykites. A polykite consists of 2 symmetrically opposed triangles. Simple proof of concept. Wonderful work by the authors!

Credits: Tumblr post-mathhombre; paper-David Smith et al. Side-note geometry: R.Brooks, Brooks Design. 3/24/2023