

*Department of Mathematics,  
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## Zoom for Thought

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### Rational Tangles and the Square Dance

**Abstract:**

An  $n$ -tangle is a proper embedding of the disjoint union of  $n$  arcs into a 3-ball, in such a way that the endpoints are mapped to  $2n$  marked points on the balls boundary. In 1967, Conway developed the theory of a special class of 2-tangles, called “rational tangles,” leading to important results on the classification of knots. Rational tangles themselves have an elegant classification which relates to continued fraction expansions of rational numbers. We explore this connection in the context of a fun activity, which was developed by Conway in order to demonstrate some aspects of the theory.

**Tuesday, April 27, 2021**

**2:00 PM**

**Please see email with subject “Zoom for  
Thought Information.”**

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