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Some mathematics motivated by origami

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Abstract: Origami has, in the past several decades, gained popularity as both an artistic medium and a rich source of mathematical and algorithmic problems. I will discuss some mathematical problems and results motivated by paperfolding. One of these is a new construction for folding an $n \times n$ checkerboard from an uncut square or rectangular sheet. The two sides of the sheet have different colors and this is used to create a grid of squares alternating in color. The construction is asymptotically the best known and, in particular, beats a long-conjectured lower bound. (Results include joint work with Erik and Martin Demaine and Robert Lang.)

Background: No particular background is necessary.

About the speaker: Dr. Konjevod received his Ph.D. in Mathematical Sciences at Carnegie Mellon University. He was a professor of Computer Science and Engineering at Arizona State University until 2010, when he moved to Lawrence Livermore National Laboratory. His main research interests are in discrete algorithms, optimization and operations research.

SNACKS IN MH331B AT 2:30 PM
TALK STARTS AT 3 PM

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