



The Math Colloquium  
Department of Mathematics  
San José State University



# Marshall Bern

Palo Alto Research Center

*The mathematics of origami*

OCTOBER 3, 2012, MH320

**Abstract:** Origami, the ancient art of paper folding, connects to many branches of mathematics from elementary to advanced. Origami mathematics assumes idealized zero-thickness paper that can be folded to 0 or 360-degree dihedral angles, but cannot pass through itself. I will survey a number of origami mathematics questions, including flat folding, cutting out polygonal shapes, and shrinking, flattening, and inflating polyhedra.

*Background:* No particular background is necessary.

**About the speaker:** Marshall Bern has a BA in Mathematics from Yale, an MA in Applied Mathematics and Statistics from U. Texas Austin, and a PhD in Computer Science from UC Berkeley. He is Principal Scientist at Palo Alto Research Center and Vice President of Protein Metrics, a start-up company specializing in mass spectrometry data analysis. He has worked in combinatorial optimization, computational geometry, and most recently bioinformatics.

SNACKS IN MH331B AT 2:30 PM

TALK STARTS AT 3 PM

For more information, see our full schedule at:

<http://www.math.sjsu.edu/~hsu/colloq/>