

1135-F1-1910      **Eve Torrence\***, etorrenc@rmc.edu. *Hypar Zonohedra*.

A pleated hypar is made by folding paper to form an origami model that approximates a hyperbolic paraboloid. The term hyparhedra was coined by Erik Demaine, Martin Demaine, and Anna Lubiw in their 1999 Bridges Conference paper in which they give an algorithm for making paper sculptures based on the Platonic solids from hypars folded from square paper. By experimenting with rhombic paper and zonohedra I have created more symmetric versions of some of the Demaine et al models. Several of these sculptures have been exhibited in Bridges Conference Art Exhibitions.

In this talk I will explore the possibility of building more complex hypar zonohedra by using different shapes of rhombic paper to model a variety of polyhedra with rhombic faces. (Received September 25, 2017)