Meeting: 1004, Bowling Green, Kentucky, CHOW, Invited Address

1004-53-2 Bennett Chow*, University of California, San Diego. Combinatorial geometric flows.

We will discuss geometric flows of both simplicial surfaces and polygons in the plane. The combinatorial Ricci flow of surfaces takes triangulated surfaces which are piecewise hyperbolic, euclidean, or spherical and tries to make the curvatures at the vertices constant. It is related to Thurston's circle packing metrics. At the moment, very little seems to be known about combinatorial flows of planar polygons. We start with a linear equation which can be analyzed.

The works we discuss are joint with Feng Luo (surfaces) and David Glickenstein (polygons). (Received February 02, 2004)