1145-05-847 Lowell Abrams* (labrams@gwu.edu) and Vance Faber. Quadrangulated Immersions of Cubic Graphs in the Sphere.

A quadrangulated immersion of a graph G in a surface S is a drawing of G in S so that each crossing is transversal, each point of crossing is formed by exactly two edges, and each connected region of the complement of G in S is bounded by [portions of] four edges of G. We discuss basic constraints on quadrangulated immersions of cubic graphs in the sphere, and demonstrate various methods of constructing such immersions, including methods for constructing non-isomorphic immersions of the same graph. (Received September 17, 2018)