

This thesis introduces an algorithm that connects two Bézier patches indistinguishably. The algorithm modifies patches to have a common tangent plane. We use the Chiyokura Kimura method to a tensor product Bézier surfaces and Bézier triangles. We ensure this type of continuity for multiple patches by replacing the control points with rational functions. These are called the Gregory patches. We prove that both of the methods connect two patches with G^1 continuity. Finally, we present the results of the algorithm on asymmetric icosahedron and on real geometric objects such as Stanford Bunny.