LEX OVERSTEEGEN, UAB, Birmingham, AL 35294, USA On the structure of pseudo convex sets in the sphere

A connected open subset U of the sphere is called pseudo convex if for all points z in U there exist at most two closest points in the boundary of U. Answering a question by David Herron and David Minda, we show that such a set has at most two boundary components. We also provide a detailed analysis of sets with this property.