Extending the Grace-Heawood theorem to minimal regions. Preliminary report.

If $P$ is a complex polynomial of degree $n$ such that $P(-1) = P(1)$, then the Grace-Heawood theorem guarantees that $P$ has a critical point in every disk or half-plane containing both points $\pm i\cot(\pi/n)$. In this paper, we examine how to extend this theorem to minimal regions in the complex plane. (Received September 24, 2017)