1014-Z1-1103 Mohammed A. Qazi^{*} (qazima@aol.com), Department of Mathematics, Tuskegee University, Tuskegee, AL 36830, and Q. I. Rahman, Dept. de mathematiques et de statistique, Universite de Montreal, CP 6128 succ Centre-Ville, Montreal, Quebec H3C3J7, Canada. *Behaviour of trigonometric polynomials with only real zeros near a critical point.* Preliminary report.

Let $\xi_0 < \cdots < \xi_{2n-1} < \xi_{2n} = \xi_0 + 2\pi$ be any set of 2n + 1 consecutive critical points of a trigonometric polynomial t of degree n having only real zeros, all simple. Besides, let $m := \min_{0 \le \nu \le 2n-1} |t(\xi_{\nu})|$ and $M := \max_{0 \le \nu \le 2n-1} |t(\xi_{\nu})|$. Supposing that $m = |t(\xi_k)|$, we study the behaviour of t in the neighbourhood of ξ_k , and decide how far away the closest of its zeros can be. (Received September 27, 2005)