1086-15-660 **Daeshik Choi*** (ds77choi@math.washington.edu), University of Washington, Department of Mathematics, Box 354350, Seattle, WA 98195. *A proof of Crouzeix's conjecture for a class of matrices.*

Crouzeix's conjecture is that for any square matrix A and any polynomial p we have

$$||p(A)|| \leq 2 \max\{|p(z)| : z \in W(A)\},$$

where $W(A)$ is the field of values of A and $||\cdot||$ denotes the spectral norm. In this paper, we show that the conjecture holds for the matrices of the form

$$\begin{pmatrix} \lambda & \alpha_1 & & \\ & \ddots & \ddots & \\ & & \ddots & \alpha_{n-1} \\ \alpha_n & & & \lambda \end{pmatrix},$$

where $\lambda \in \mathbb{C}$ and $\alpha = (\alpha_1, \ldots, \alpha_n) \in \mathbb{C}^n$. (Received September 25, 2012)