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**Xue Zhiqun\*** (xuezhiquan@126.com), Shijiazhuang Railway College, 050043 Shijiazhuang, Hebei, Peoples Rep of China. *Convergence Theorems for Fixed Points of Generalized Lipschitz  $\Phi$ -Pseudocontractive Mappings in Banach Spaces.*

Let  $E$  be a uniformly smooth real Banach space and  $K$  be a nonempty closed convex subset of  $E$ . Assume that  $T : K \rightarrow K$  is a generalized Lipschitz  $\Phi$ -pseudocontractive mapping. Assume that  $\Phi(r) \rightarrow +\infty$  as  $r \rightarrow +\infty$  and the fixed point set  $F(T) \neq \emptyset$ . Let  $\{\alpha_n\}_{n=0}^{\infty}$  and  $\{\beta_n\}_{n=0}^{\infty}$  be two real sequences in  $[0, 1]$  satisfying the conditions: (i)  $\alpha_n, \beta_n \rightarrow 0$  as  $n \rightarrow \infty$ ; (ii)  $\sum_{n=0}^{\infty} \alpha_n = \infty$ . Then the Ishikawa iterative sequence generated from an arbitrary  $x_0 \in K$  by (IS)

$$\begin{cases} x_{n+1} = (1 - \alpha_n)x_n + \alpha_n T y_n \\ y_n = (1 - \beta_n)x_n + \beta_n T x_n \end{cases}$$

converges strongly to the unique fixed point of  $T$ . (Received July 18, 2005)