Abstract

In this paper, we study the strong convergence of SP iterative scheme for quasi-contractive operators in Banach spaces. We show that Picard, Mann, Ishikawa, Noor, new two step and SP iterative schemes are equivalent for quasi-contractive operators. In addition, we show that the rate of convergence of SP iterative scheme is better than the other iterative schemes.
mentioned above for increasing and decreasing functions.

**Reference**

- Soltuz, S. M., The equivalence between Krasnoselskij, Mann, Ishikawa, Noor
and multistep iterations, Mathematical Communications 12(2007),53-61.

Index Terms

Computer Science
Applied Mathematics

Key words

SP iteration Picard iteration Mann iteration
Ishikawa
iteration

Noor iteration

new two step iteration

Strong convergence

Quasi-contractive operators