STRONG CONVERGENCE THEOREM FOR NOOR ITERATIONS OF A
FINITE FAMILY OF ASYMPTOTICALLY QUASI-NONEXPANSIVE
TYPE MAPPINGS IN CAT(0) SPACES

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ABSTRACT. In this paper, we study strong convergence for Noor iterations of a finite
family of asymptotically quasi-nonexpansive type mappings in the framework of CAT(0)
spaces. The said iteration scheme includes modified Mann and Ishikawa iterations, the
three-step iteration scheme of Xu and Noor and the scheme of Khan, Domlo and Fukhar-
ud-din as special cases. Also, we establish some strong convergence theorems using semi-
compactness and condition (A). Our results extend and generalize the previous works
from the current existing literature.

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Received: April 08, 2015. Revised: June 18, 2015.
2010 Mathematics Subject Classification: 54H25, 54E40.
Key words and phrases: Asymptotically quasi-nonexpansive type mapping, Noor iteration scheme, com-
mon fixed point, strong convergence, CAT(0) space.

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Noor iterations of a finite family of asymptotically quasi-nonexpansive type mappings in CAT(0) spaces


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