

MONOTONE ITERATIVE METHODS FOR SYSTEMS OF NONLINEAR EQUATIONS INVOLVING MIXED MONOTONE OPERATORS

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Abstract. In this paper, we study the existence and uniqueness of fixed points for systems of mixed monotone operators in a partially ordered Banach space. As an application of the results obtained, the existence and uniqueness of positive solutions for a class of systems of integral equations are presented.

Key Words and Phrases: Cone, ordered Banach space, mixed monotone operator, positive fixed point, system of nonlinear equations, monotone iterative technique, integral equations.

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