

Decoupling and simplifying of difference equations in the neighbourhood of invariant manifold

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We consider systems of nonautonomous difference equations in Banach space. For these systems, sufficient conditions under which there is a local Lipschitzian invariant manifold are obtained. Using this result and nonexponential Green type maps we find sufficient conditions of partial decoupling and simplifying for systems of invertible and noninvertible difference equations.

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