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Qualitative Theory of Dynamical Systems
Volume 16, Issue 2, 1 July 2017, Pages 249-267

Stability and Monotonicity of Lotka–Volterra Type Operators (Article)

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Abstract

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In the present paper, we investigate stability of trajectories of Lotka–Volterra (LV) type operators defined in finite dimensional simplex. We prove that any LV type operator is a surjection of the simplex. It is introduced a new class of LV-type operators, called MLV type ones, and we show that trajectories of the introduced operators converge. Moreover, we show that such kind of operators have totally different behavior than F-monotone LV type operators. © 2016, Springer International Publishing.

Author keywords

[Lotka–Volterra type operators](#)
[Monotone operator](#)
[Simplex](#)
[Stability](#)
[Surjection](#)

Funding details

Funding number	Funding sponsor	Acronym
	Abdus Salam International Centre for Theoretical Physics	ICTP
ERGS13-024-0057	Ministry of Higher Education, Malaysia	MOHE

Funding text

The authors acknowledge the MOHE Grant ERGS13-024-0057, and the authors are also grateful the Junior Associate scheme of the Abdus Salam International Centre for Theoretical Physics, Trieste, Italy.

ISSN: 15755460
Source Type: Journal
Original language: English

DOI: 10.1007/s12346-016-0190-3
Document Type: Article
Publisher: Birkhauser Verlag AG

References (45)

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