

Document details

Back to results | < Previous **2 of 2**

[Full Text](#) | [View at Publisher](#) | [CSV export](#) | [Download](#) | [Save to list](#) | [More...](#)

Lecture Notes in Electrical Engineering

Volume 362, 2016, Pages 323-335

2nd International Conference on Communication and Computer Engineering, ICOCOE 2015; Phuket, Thailand; 9 June 2015 through 11 June 2015; Code 160719

Dynamics classifications of extreme doubly stochastic quadratic operators on 2D simplex (Conference Paper)

Abdulghafor, R.^a, Shahidi, F.^b, Zeki, A.^a, Turayev, S.^a

^a Kulliyah of Information and Communication Technology, International Islamic University Malaysia, Kuala Lumpur, Malaysia

^b Department of Mathematics, Pennsylvania State-University-UP, State College, PA, United States

Abstract

[View references \(10\)](#)

We study the **dynamics** of **extreme doubly stochastic quadratic operators** (d.s.q.o.) on two dimensional (**2D**) **simplex**. We provide some examples of d.s.q.o. which have infinitely many fixed points. We prove that the trajectory of **extreme** d.s.q.o., starting at some interior point of the **simplex** is convergent. Finally, we classify the **dynamics** of all **extreme** points of d.s.q.o. on **2D**. © Springer International Publishing Switzerland 2016.

Author keywords

Convergence and **simplex**; **Doubly stochastic quadratic operators**; Fixed point; Trajectory

Indexed keywords

Engineering controlled terms: Dynamics; Trajectories

Convergence and **simplex**; **Doubly stochastic**; **Dynamics classifications**; **Extreme** points; Fixed points; Interior point; Two Dimensional (2D)

Engineering main heading: Stochastic systems

ISSN: 16761100 ISBN: 978-331924582-9 Source Type: Book series Original language: English

DOI: 10.1007/978-3-319-24584-3_26 Document Type: Conference Paper

Volume Editors: Sulaiman H.A., Othman M.A., Othman M.F.I., Rahim YA., Pee N.C. Sponsors: Publisher: Springer Verlag

References (10)

[View in search results format](#)

Cited by 0 documents

Inform me when this document is cited in Scopus:

[Set citation alert](#) | [Set citation feed](#)

Related documents

The dynamics of some extreme doubly stochastic quadratic operators

Shahidi, F., Ganikhodzhaev, R., Abdulghafor, R. (2013) Middle East Journal of Scientific Research

Dynamics of doubly stochastic quadratic operators on a finite-dimensional simplex

Abdulghafor, R., Shahidi, F., Zeki, A. (2016) Open Mathematics

Necessary and sufficient conditions for doubly stochasticity of infinite-dimensional quadratic operators

Shahidi, F. (2013) Linear Algebra and Its Applications

[View all related documents based on references](#)

Find more related documents in Scopus based on:

[Authors](#) [Keywords](#)

Metrics

1 Mendeley Reader 16TH PERCENTILE

[View all metrics](#)