

Accepted Manuscript

Chaos as the hub of systems dynamics. The part I – The attitude control of spacecraft by involving in the heteroclinic chaos

Anton V. Doroshin

PII: S1007-5704(17)30382-9
DOI: [10.1016/j.cnsns.2017.11.008](https://doi.org/10.1016/j.cnsns.2017.11.008)
Reference: CNSNS 4365



To appear in: *Communications in Nonlinear Science and Numerical Simulation*

Received date: 26 May 2017
Revised date: 2 November 2017
Accepted date: 6 November 2017

Please cite this article as: Anton V. Doroshin , Chaos as the hub of systems dynamics. The part I – The attitude control of spacecraft by involving in the heteroclinic chaos, *Communications in Nonlinear Science and Numerical Simulation* (2017), doi: [10.1016/j.cnsns.2017.11.008](https://doi.org/10.1016/j.cnsns.2017.11.008)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- The chaos in dynamical systems is considered as a positive aspect of dynamical behavior which can be applied to change systems dynamical parameters and to change systems qualitative properties.
- The chaos can be characterized as a hub for the system dynamical regimes, because it allows to interconnect separated zones of the phase space of the system, and to fulfill the jump into the desirable phase space zone.
- The concretized aim of this part of the research is to focus on developing the attitude control method for magnetized gyrostatt-satellites, which uses the passage through the intentionally generated heteroclinic chaos.

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/7154734>

Download Persian Version:

<https://daneshyari.com/article/7154734>

[Daneshyari.com](https://daneshyari.com)