



*Mathematical Sciences / Mathematics*

# Mahdi Pourbarat

شماره تماس: ۲۹۹۰۲۹۲۴

رایانامه: [M-Pourbarat@sbu.ac.ir](mailto:M-Pourbarat@sbu.ac.ir)

وب سایت:

<http://facultymembers.sbu.ac.ir/pourbarat>

پروفايل علم سنجی:

[http://scimet.sbu.ac.ir/Mehdi\\_Pourbarat](http://scimet.sbu.ac.ir/Mehdi_Pourbarat)

## Education

- ,
- Ph.D: SHAHID BEHESHTI UNIVERSITY,

■ ,

■

■

## Research Interests

## Journal Papers

- **Chaos in One-dimensional Piecewise Smooth Dynamical Systems**  
Mahdi Pourbarat, Neda Abbasi, Roya Makrooni, Mohammad Reza Molaei  
JOURNAL OF DYNAMICAL AND CONTROL SYSTEMS, Vol.29, pp. 1271-1285, 2023
- **On some kinds of dense orbits in general nonautonomous dynamical systems**  
Mahdi Pourbarat  
nonautonomous dynamical systems, Vol.7, pp. 163-175, 2020
- **Stable intersection of affine Cantor sets defined by two expanding maps**  
Mahdi Pourbarat  
JOURNAL OF DIFFERENTIAL EQUATIONS, Vol.26, pp. 2125-2141, 2019
- **ON THE ARITHMETIC DIFFERENCE OF MIDDLE CANTOR SETS**  
Mahdi Pourbarat  
DISCRETE AND CONTINUOUS DYNAMICAL SYSTEMS, Vol.38, pp. 4259-4278, 2018
- **On subspaces that are not Baire**  
Mahdi Pourbarat, Neda Abbasi  
New Zealand Journal of Mathematics, Vol.45, pp. 65-69, 2015
- **Nonautonomous Discrete Systems Density of Orbits and Transitivity**  
Mahdi Pourbarat, Neda Abbasi  
INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, Vol.25, pp. 651-656, 2015

■ Analysis of dynamical system to transition probabilities in the Birth-Death Markov process in the epidemic model

Fateme Sadat Movahedi, Changiz Eslahchi, Mahdi Pourbarat, Mohammad Sadegh Shahrokhi-Dehkordi  
Far East Journal of Dynamical Systems, Vol.26, pp. 61-74, 2015

■ Robust unbounded chaotic attractors in 1D discontinuous maps

, Neda Abbasi, Mahdi Pourbarat,  
CHAOS SOLITONS and FRACTALS, Vol.77, pp. 310-318, 2015

■ Stable intersection of middle- Cantor sets

Mahdi Pourbarat  
COMMUNICATIONS IN CONTEMPORARY MATHEMATICS, Vol.17, pp. 1-19, 2015

■ Matter Confinement Mechanism in de Sitter Brane

Mahdi Pourbarat, Mohammad Sadegh Shahrokhi-Dehkordi  
REPORTS ON MATHEMATICAL PHYSICS, Vol.74, pp. 359-370, 2014

■ On the quantum representation of Lorentz non-invariant models

Reza Rashidi, Mahdi Pourbarat  
indian journal of physics and application(IJPA), Vol.1, pp. 109-114, 2013

■ Arithmetic difference of middle Cantor sets self-similarity and measure

Mahdi Pourbarat  
Journal of Dynamical Systems and Geometric Theories, Vol.10, pp. 107-114, 2012

■ On the Arithmetic Difference of Affine Cantor Sets

Bahman Honari, Mahdi Pourbarat, M.R. Velayati  
Journal of Dynamical Systems and Geometric Theories, Vol.4, pp. 139-146, 2006

■ Stable intersections of affine cantor sets

, Bahman Honari, Mahdi Pourbarat  
BULLETIN OF THE BRAZILIAN MATHEMATICAL SOCIETY, Vol.3, pp. 363-378, 2005

■ مدلسازی آشوب در دستگاه های دینامیکی قطعه ای هموار با یک نقطه ی ناپیوستگی

مهدی پوربرات، ندا عباسی، رویا مکرونی

مدلسازی پیشرفته ریاضی، نسخه ۹، صفحات: ۹۳-۱۰۵، ۱۳۹۷

## Conference Papers

■ On the arithmetic difference of middle Cantor sets

Mahdi Pourbarat  
Mathematical Congress of the Americas

■ Wiggling chaos in linear nonautonomous discrete systems

Mahdi Pourbarat  
Contributed session bifurcation and chaotic dynamics

■ One dimensional Baker-like map with infinitely many branches

مهدی پوربرات

سمینار معادلات دیفرانسیل و سیستم های دینامیکی، صفحات: ۴۹۰-۴۹۴

■ Nonautonomous discrete systems

مهدی پوربرات

هندسه توپولوژی، صفحات: ۷۲-۷۶

A dynamic criterion for recognizing some topological spaces without Baire property ■

مهدی پوربرات  
هندسه توپولوژی

Topological rigidity for holomorphic foliation ■

مهدی پوربرات  
کارگاه آموزشی سیستمهای دینامیکی و آشوب

## thesis and doctoral thesis

■  
Neda Abbasi  
2015

## M.Sc. Theses

■ Livsic theorem ,Matrix Cocycles, Trivial Periodic data, Lyapunov exponents, Coboundary  
Fahimeh Fotoohi ardakani  
2022

■ geodesic flows modelld by expensive flows  
Maryam Dehbandi  
2021

■ homoclinic origin of henon-like maps  
Maedeh Rahmani  
2021

■ rate of approximation of minimizing measures  
Ozra Kargar  
2021

■ Dynamical systems arising from elliptic curves  
Haleh Hoseini  
2021

■ WHAT ARE LYAPUNOV EXPONENTS,AND WHY ARE THEY INTERESTING?  
Esmaeel Karimi Dehkordi  
2020

■ lyapunov functionals and matrices  
Saeid Azadi  
2020

■ chaos in a three-dimensional general model of neural network  
Shima Khalighi  
2019

■ Geometric properties of Markov and Lagrange spectra  
Sayyed Rreza Parsa  
2019

■  
Vahid Rafiei  
2018

■  
Farnaz Soltani  
2018

■  
Parisa Sabet  
2017

■  
Jaber Akbari Cheshani  
2017

■  
Behnaz Refahi Esfandabadi  
2017

■  
Mohammad Hossein Yahyayi  
2015

■  
Masoomah Ahmadi  
2015

■  
Marjan Jadidi  
2014

■  
Sepedeh Bakhoda  
2014

■  
2014

■  
Zeinab Hanifei  
2014

■  
Amin Shojaei  
2013

■  
Mohammad Zebarjadi  
2013

■  
Zahra Eyni

2012



Saeed Yarkeh Salkhori  
2012



Ahmad Heydari  
2012



2012



Tooba Manshoori Ghayesh Ghorshagh  
2011



Hamidreza Yazdani  
2011



Hamid Siyabi Serajehloo  
2009

## **Awards & Honors**

■ حکم قهرمانی در فوتبال

۱۳۸۶