

Rasool Kazemi

Department of Mathematical Sciences
University of Kashan
Kashan 8731753153
Email: r.kazemi@kashanu.ac.ir

EDUCATION

- | | |
|--|-----------------------|
| Ph.D. in Applied Mathematics
Isfahan University of Technology
Dissertation: "Bifurcation of limit cycles from perturbed hyper-elliptic Hamiltonian systems."
Supervisor: Prof. Hamid Reza Zangeneh
Advisor: Prof. Hans Crauel | October 2012 |
| M.Sc. in Pure Mathematics
Sharif University of Technology
Thesis: "Stochastic calculus and stochastic differential equations."
Supervisor: Prof. Bijan Zangeneh | September 2008 |
| B.Sc. in Pure Mathematics
Isfahan University of Technology | July 2006 |
-

AWARDS AND HONORS

- | | |
|---|------------------|
| • 12 th rank in the Iranian universities entrance exam of master degree. | 2006 |
| • "High Talented Student" of Sharif University of Technology. | 2006-2008 |
| • "High Talented Student" of Isfahan University of Technology. | 2008-2012 |
-

TEACHING EXPERIENCE

- | | |
|--|-----------------------|
| Instructor (Isfahan University of Technology)
Calculus II, Ordinary Differential Equations. | 2008-2012 |
| Instructor (University of Kashan)
Calculus I, Calculus II, Ordinary Differential Equations, Foundations of Analysis, Mathematical Analysis, Theory of Differential Equations, Foundations of Dynamical Systems, Real Analysis, Dynamical Systems ¹ , Dynamical Systems ² , Discrete Dynamical Systems. | 2012-until Now |
| Teaching Assistant (Isfahan University of Technology) | 2008-2012 |
-

PUBLICATIONS AND PAPERS

- **Papers**

- Rasool Kazemi, Hamid R.Z. Zangeneh, Ali Atabaigi, "On the number of limit cycles in small perturbations of a class of hyper-elliptic Hamiltonian systems", *Nonlinear Analysis* 75 (2012) 574–587.
- Ali Atabaigi, Hamid R.Z. Zangeneh, Rasool Kazemi, "Limit cycle bifurcation by perturbing a cuspidal loop of order 2 in a Hamiltonian system", *Nonlinear Analysis* 75 (2012) 1945–1958.
- Rasool Kazemi, Hamid R.Z. Zangeneh, "Bifurcation of limit cycles in small perturbations of a hyper-elliptic Hamiltonian system with two nilpotent saddles", *Journal of Applied Analysis and Computation*, Volume 2, Number 4, (2012) 395-413.
- Xianbo Sun, Hongjian Xi, Hamid R.Z. Zangeneh, Rasool Kazemi, "Bifurcation of Limit Cycles in Small Perturbation of a Class of Lienard Systems", *International Journal of Bifurcation and Chaos*, Vol. 24, No. 1 (2014) 1450004 (23 pages).
- Hamid R.Z. Zangeneh¹, Rasool Kazemi and Masoud Mosaddeghi, "Classification of bounded travelling wave solutions of the generalized Zakharov equation", *Iranian Journal of Science & Technology*, 38A3 (2014) 355-364.
- Ali Zaghian, Rasool Kazemi, Hamid R.Z. Zangeneh, "Bifurcation of limit cycles in a class of Lienard systems with a cusp and nilpotent saddle", *U.P.B. Sci. Bull., Series A*, Vol. 78, Iss. 3 (2016) 95-106.
- Ali Bakhshalizadeh, Hamid R.Z. Zangeneh, Rasool Kazemi, "Bifurcation of Limit Cycles in a Near-Hamiltonian System with a Cusp of Order Two and a Saddle", *International Journal of Bifurcation and Chaos*, Vol. 26, No. 11 (2016) 1650180 (14 pages).
- Pegah Moghimi, Rasoul Asheghi, Rasool Kazemi, "On the Number of Limit Cycles Bifurcated from Some Hamiltonian Systems with a Double Homoclinic Loop and a Heteroclinic Loop", *International Journal of Bifurcation and Chaos*, Vol. 27, No. 4 (2017) 1750055 (15 pages).
- Ali Bakhshalizadeh, Rasoul Asheghi, Rasool Kazemi, "On the monotonicity of the ratio of some hyper-elliptic integrals of order 7", accepted 2017.
- Rasool Kazemi, "Monotonicity of the ratio of two Abelian integrals for a class of symmetric hyper-elliptic Hamiltonian systems", *Journal of Applied Analysis and Computation*, Vol. 8, No. 1, (2018), 344-355.
- Pegah Moghimi, Rasoul Asheghi, Rasool Kazemi, "On the number of limit cycles bifurcated from a near Hamiltonian system with a double homoclinic loop of cuspidal type surrounded by a hetroclinic loop", *International Journal of Bifurcation and Chaos*, Vol. 28, No. 1 (2018) 1850004 (21 pages).

- **Books**

- ریاضی ۲، تألیف مجید مزروعی، رسول کاظمی، امیرحسین نخودکار، تحت چاپ.
- آشوب گسسته با کاربردهایی در علوم و مهندسی، تألیف صابر الایدی، ترجمه رسول کاظمی، انتشارات دانشگاه یزد، چاپ اول زمستان ۹۵.

-
- **Conference paper**
 - Rasool Kazemi, Hamid R.Z. Zangeneh, Limit cycles bifurcation by perturbing an eye-figure loop in a Hamiltonian system, Proc. of the 9th Seminar on Differential Equations and Dynamical Systems, Tabriz, Iran, July 11-13, 2012.
 - Rasool Kazemi, The monotonicity of the ratio of two hyperelliptic Abelian integrals, 13th International Seminar on Differential Equations, Dynamical Systems and Applications, Isfahan University of Technology, Iran, July 13-15, 2016.
 - رسول کاظمی، تعداد صفرهای انتگرال آبلی متناظر با یک دستگاه همیلتونی مختل شده، چهل و هشتمین کنفرانس ریاضی ایران، ۳۱ مرداد تا ۳ شهریور ۹۶، دانشگاه بوعلی همدان.
 - رسول کاظمی، یکنوایی نسبت دو انتگرال آبلی در یک دستگاه همیلتونی مرتبه ۸، چهل و هشتمین کنفرانس ریاضی ایران، ۳۱ مرداد تا ۳ شهریور ۹۶، دانشگاه بوعلی همدان.

RESEARCH PROJECTS

- Monotonicity of period function in some class of potential systems, in progress.
- Applications of dynamical systems in mathematical biology, in progress.

RESEARCH INTERESTS

- Bifurcation Theory.
 - Hilbert- Arnold's Problem.
 - Qualitative Theory of Dynamical Systems.
-