

CURRICULUM VITAE

Personal

- First Name: **Amin**
- Surname: **Esfahani**
- Gender: Male
- Address: Department of Mathematics, Damghan university
- E-mail: saesfahani@gmail.com

Education

- Post-Doctorate, 2008-2009, Universidade de São Paulo (USP), São Paulo, Brazil
Supervisor: Jaime Angulo
- Ph.D. in Mathematics, December 2008, Instituto de Matemática Pura e Aplicada (IMPA), Rio de Janeiro, Brazil
Area: Partial Differential Equations
Supervisor: Felipe Linares
Thesis Title: High Dimensional Nonlinear Dispersive Models
- M.Sc. in Mathematics, September 2003, Sharif University Of Technology, Tehran (SUT)
Area: Partial Differential Equations
Supervisor: Mahmoud Hesaaraki
Thesis Title: The Green Functions and (Non)-Existence of Biharmonic Problems at Critical Growth
- B.Sc. in Mathematics, September 2001, Damghan University (DU), Damghan

Employment

- Associate Professor: 2015-, Damghan University
- Assistant Professor: 2009-2015, Damghan University,
- Lecturer: 2008-2009, Universidade de São Paulo
- Lecturer (pt): 2007-2008, Instituto de Matemática Pura e Aplicada

Research Interests

- Partial Differential Equations • Dynamical Systems • Fluid Dynamics • Mathematical Physics
- Harmonic Analysis • Stochastic Differential Equations • Inverse Problems

Teaching Experience

- Ordinary differential equations • Partial differential equations • Calculus and vector analysis
- Introduction to differential equations • Introduction to dynamical systems • Engineering mathematics • Functional analysis • Complex analysis • Geometry of manifolds • Differential geometry
- Real analysis • Parabolic differential equations • Harmonic analysis • Nonlinear evolution equations

Publications

Analysis of PDEs

- 1- **A. E.**, *On the Benney equation*, Proc. Roy. Soc. Edinburgh Sect. A 139 (2009) 1121–1144.
- 2- **A. E.**, A. Pastor, *Instability of solitary wave solutions for the generalized BO-ZK equation*, J. Differential Equations 247 (2009) 3181–3201.
- 3- **A. E.**, *Decay properties of the traveling waves of the rotation-generalized Kadomtsev-Petviashvili equation*, J. Phys. A: Math. Theor. 43 (2010) 395201.
- 4- **A. E.**, A. Pastor, *Ill-posedness results for the (generalized) Benjamin-Ono-Zakharov-Kuznetsov equation*, Proc. Amer. Math. Soc. 139 (2011) 943–956.
- 5- **A. E.**, *Instability of solitary waves of the generalized higher-order KP equation*, Nonlinearity 24 (2011) 833–846.
- 6- **A. E.**, *On the ZK equation with a directional dissipation*, Appl. Math. Comput. 217 (2011) 4911–4927.
- 7- **A. E.**, *Remarks on solitary waves of the generalized two dimensional Benjamin-Ono equation*, Appl. Math. Comput. 218 (2011) 308–323.
- 8- **A. E.**, A. Pastor, *On the unique continuation property for Kadomtsev-Petviashvili-I and Benjamin-Ono-Zakharov-Kuznetsov equations*, Bull. London Math. Soc. 43 (2011) 1130–1140.
- 9- **A. E.**, L.G. Farah, *Local well-posedness for the sixth-order Boussinesq equation*, J. Math. Anal. Appl. 385 (2012) 230–242.
- 10- **A. E.**, *Remarks on a two dimensional BBM type equation*, Commun. Pure Appl. Anal. 11 (2012) 1111–1127.
- 11- **A. E.**, *The Cauchy problem for the dissipation-modified Kadomtsev-Petviashvili equation*, J. Math. Anal. Appl. 390 (2012) 439–455.
- 12- **A. E.**, L.G. Farah, H. Wang, *Global existence and blow-up for the generalized sixth-order Boussinesq equation*, Nonlinear Analysis TMA 75 (2012) 4325–4338.
- 13- **A. E.**, S. Levandosky, *Stability of solitary waves for the generalized higher-order Boussinesq equation*, J. Dynamics Diff. Equations 24 (2012) 391–425.
- 14- **A. E.**, *The ADMB-KdV equation in anisotropic Sobolev spaces*, Diff. Equations Appl. 4 (2012) 459–484.
- 15- **A. E.**, *Cauchy problem for a model of nonlinear waves generated in viscous films*, Math. Meth. Appl. Sci. 35 (2012) 1931–1950.
- 16- **A. E.**, S. Levandosky, *Solitary waves of the rotation-generalized Benjamin-Ono equation*, Discrete Contin. Dyn. Syst. 33 (2013) 663–700.

- 17- **A. E.**, R. Pourgholi, *The ADMB-KdV equation in a time-weighted space*, Ann. Univ. Ferrara. 59 (2013) 269–283.
- 18- H. Wang, **A. E.**, *Well-posedness for the Cauchy problem associated to a periodic Boussinesq equation*, Nonlinear Analysis TMA 89 (2013) 267–275.
- 19- **A. E.**, *Sharp well-posedness of the Ostrovsky, Stepanyams and Tsimring equation*, Math. Commun. 18 (2013) 323–335.
- 20- **A. E.**, R. Pourgholi, *Dynamics of solitary waves of the Rosenau-RLW equation*, Diff. Equations Dynam. Syst. 22 (2014) 93–111.
- 21- **A. E.**, R. Pourgholi, *Well-posedness of the ADMB-KdV equation in Sobolev spaces of negative indices*, Acta Math. Viet. 39 (2014) 237–251.
- 22- **A. E.**, H. Wang, *A bilinear estimate with application to the sixth-order Boussinesq equation*, Differential Integral Equations 27 (2014) 401–414.
- 23- **A. E.**, *Scattering of solutions and stability of solitary waves for the generalized BBM-ZK equation*, Commun. Math. Sci. 12 (2014) 293–315.
- 24- **A. E.**, *Instability of the stationary solutions of generalized dissipative Boussinesq equation*, Appl. Math. 59 (2014) 345–358.
- 25- H. Wang, **A. E.**, *Global rough solutions to the sixth-order Boussinesq equation*, Nonlinear Analysis TMA 102 (2014) 97–104.
- 26- **A. E.**, A. Pastor, *Well-posedness and orbital stability of traveling waves for the Schrödinger-improved Boussinesq system*, Nonlinear Analysis RWA 22 (2015) 206–218.
- 27- **A. E.**, A. Pastor, J.L. Bona, *Stability and Decay properties of Solitary wave solutions for the generalized BOZK equation*, Adv. Differential Equations 20 (2015) 801–834.
- 28- **A. E.**, *Anisotropic Gagliardo-Nirenberg inequality with fractional derivatives*, Z. Angew. Math. Phys. 66 (2015) 3345–3356.
- 29- **A. E.**, A. Pastor, *Sharp constant of an anisotropic Gagliardo-Nirenberg-type inequality and applications*, Bull. Braz. Math. Soc. 48 (2017) 171–185.
- 30- **A. E.**, *Qualitative properties of solutions of an integral equation associated with the Benjamin-Ono-Zakharov-Kuznetsov operator*, Indag. Math. 28 (2017) 601–611.
- 31- **A. E.**, V.B. Mohammadi, *Global existence and asymptotic behavior of solutions for the Cauchy problem of a dissipative Boussinesq-type equation*, Math. Model. Anal. 22 (2017) 441–463.
- 32- X. Carvajal, **A. E.**, M. Panthee, *Well-posedness results and dissipative limit of high dimensional KdV-type equations*, Bull. Braz. Math. Soc. 48 (2017) 505–550.
- 33- **A. E.**, S. Levandosky, *Stability of solitary waves of the Kadomtsev-Petviashvili equation with a weak rotation*, SIAM J. Math. Anal. (2017) 49 5096–5133.
- 34- **A. E.**, *Liouville-type theorem for a nonlocal operator on the half plane*, Monatsh. Math. 186 (2018) 439–452.
- 35- **A. E.**, *Three nontrivial solutions for a nonlinear anisotropic nonlocal equation*, Acta Math. Scientia 38 (2018) 1296–1310.
- 36- **A. E.**, A. Pastor, *Two dimensional solitary waves in shear flows*, Cal. Var. PDE 57 (4) (2018) 102.

- 37- H Wang, **A. E.**, *Well-posedness result for the Ostrovsky, Stepanyams and Tsimring equation at the critical regularity*, Nonlinear Anal. RWA 44 (2018) 347–364.
- 38- **A. E.**, S.E. Esfahani, *Positive and nodal solutions of the generalized BO-ZK equation*, RAC-SAM 112 (2018) 1381–1390.
- 39- **A. E.**, S. Levandosky, *Solitary waves of a coupled KdV system with a weak rotation*, J. Differential Equations 265 (2018) 4835–4872.
- 40- **A. E.**, *Existence of solutions of a class of nonlinear nonlocal problems involving the potential*, Chaos, Solitons & Fractals 119 (2019) 1–7.
- 41- H.B. Mohammadi, **A. E.**, *Blow-up and decay behavior of solutions to the generalized Boussinesq-type equation with strong damping*, Math. Methods Appl. Sci. 42 (2019) 2854–2876.
- 42- **A. E.**, H. Wang, *Well-posedness and asymptotic behavior of the dissipative-Ostrovsky equation*, Evol. Equ. Control Theory 8 (2019) 709–735.
- 43- H. Mahmoudi, **A. E.**, *Asymptotic Behavior of solutions to an evolution equation for bidirectional surface waves in convecting fluids*, UK. Math. J. 72 (2021) 1595–1612.
- 44- **A. E.**, *Existence of solutions for a fractional equation in an unbounded domain*, J. Math. Phys. 61 (2020) 031505.
- 45- **A. E.**, H. Wang, *On the well-posedness of the dissipative Kadomtsev-Petviashvili equation*, Math. Notes 107 (2021) 333–344.
- 46- **A. E.**, H. Wang, *On the sharp local well-posedness for the modified Ostrovsky, Stepanyams and Tsimring equation*, Nonlinear Anal. RWA 60 (2021) 103288.
- 47- S.H. Tabasi, H. Dana-Mazraeh, A. Azimzadeh, R. Pourgholi, **A. E.**, *The time-dependent diffusion equation: An inverse diffusivity problem*, J. Numer. Anal. Optim. 11 (2021) 33–54.

Editorial activity

- Global Analysis and Discrete Mathematics, 2017-present
- Bulletin of Iranian Mathematical Society, 2019-present