University of Kashan

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EDUCATION

Ph.D. Connection Between the Singularity and Turning Point in the Inverse Problem for Sturm-Liouville Operator, University of Mazandaran, 2012
M.Sc. Inverse Problem for Differential Equations with Singularities and Turning Points, University of Mazandaran, 2008
B.Sc. Shahrood University, 2001

RESEARCH INTERESTS

- Theory of Ordinary Differential Equations
- Boundary Value Problems
- Inverse Sturm-Liouville Problems

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PUBLICATIONS

1- Journal Papers

- S. Mosazadeh and H. Koyunbakan, **On the stability of the solution of the inverse problem for Dirac operator**, *Applied Mathematics Letters*, Accepted for publication.

- S. Mosazadeh and H. Koyunbakan, **A stability result for an inverse problem with integro-differential operator on a finite interval**, *Journal of Integral Equations and Applications*, In press.
  https://projecteuclid.org/euclid.jiea/1560240097

- S. Mosazadeh, **On the Lipschitz stability of inverse nodal problem with discontinuous boundary conditions on finite intervals**, *Iranian Journal of Mathematical Sciences and Informatics*, In press.

- S. Mosazadeh, **Inverse Sturm-Liouville problems with two supplementary discontinuous conditions on two symmetric disjoint intervals,** *Computational Methods for Differential Equations*, In press.

- S. Mosazadeh, A. Neamaty and M. Bagherzadeh, **On the numerical solution of an inverse spectral problem with a singular potential**, *International Journal of Mathematics in Operational Research*, In press.
  DOI: 10.1504/IJMOR.2020.10023935

- S. Mosazadeh, **Reconstruction of singular second-order differential equations from spectral characteristics**, *Acta Mathematica Applicatae Sinica, English Series*, **35** (2019), 645-654.

- S. Mosazadeh and A. Jodayree Akbarfam, **Inverse and expansion problems with boundary conditions rationally dependent on the eigenparameter**, *Bull. Iranian Math. Soc.*, (2019) 1-12.

- S. Mosazadeh, **The uniqueness theorem for the solutions of dual equations of Sturm-Liouville problems with singular points and turning points**, *Sahand Communications in Mathematical Analysis*, **13** (2019), 51-65..

- S. Mosazadeh, **Energy levels of a physical system and eigenvalues of an operator with a singular potential**, *Reports on Mathematical Physics*, **82** (2018), 137-148.

- S. Mosazadeh and R. Majidi, **The asymptotic formula for the eigenvalues of Sturm-Liouville problems with one turning point of negative order**, *Iranian Journal of Science and Technology, Transactions A: Science*, **42** (2018), 2217-2223.

- S. Mosazadeh and A. Jodayree Akbarfam, **On Hochstadt-Lieberman theorem for impulsive Sturm-Liouville problems with boundary conditions polynomially dependent on the spectral parameter**, *Turkish Journal of Mathematics*, **42** (2018), 3002-3009.

- S. Mosazadeh, **On the solution of an inverse Sturm-Liouville problem with a delay and eigenparameter dependent boundary conditions**, *Turkish Journal of Mathematics*, **42** (2018), 3090-3100.

- S. Mosazadeh, **A new approach to uniqueness for inverse Sturm-Liouville problems on finite intervals**, *Turkish Journal of Mathematics*, **41** (2017), 1224-1234.

- S. Mosazadeh, **The stability of the solution of an inverse spectral problem with a singularity**, *Bulletin of the Iranian Mathematical Society*, **41** (2015) 1061-1070.

- S. Mosazadeh, **The uniqueness theorem for inverse nodal problems with a chemical potential**, *Iranian Journal of Mathematical Chemistry*, **8** (2017) 403-411.

- S. Mosazadeh, **Infinite product representation of solution of indefinite Sturm-Liouville problem**, *Iranian Journal of Mathematical Chemistry*, **4** (2013) 27-40.

- S. Mosazadeh, **Eigenfunction expansions for second-order boundary value problems with separated boundary conditions**, *Mathematics Interdisciplinary Research*, **1** (2016) 325-334.

- A. Neamaty and S. Mosazadeh, **On the canonical solution of Sturm-Liouville problem with singularity and turning point of even order**, *Canadian Mathematical Bulletin*, **54** (2011) 506-518.

- S. Mosazadeh and A. Neamaty, **On the uniqueness of the solution of dual equation of a singular Sturm-Liouville problem**, *Proc. Indian Acad. Sci. (Math. Sci.)*, **121** (2011) 469-480.

- A. Neamaty and S. Mosazadeh, **On the canonical solution and dual equations of Sturm-Liouville problem with singularity and turning point**, *Iranian Journal of Science and Technology, Transactions A: Science*, **34** (2010) 71-88.

- A. Neamaty and S. Mosazadeh, **Asymptotic solutions and eigenvalues of second-order differential equations with poles and turning points**, *Applied Mathematical Sciences*, **3** (2009) 1017-1022.

- A. Neamaty, S. Mosazadeh and M. Bagherzadeh, **Uniqueness theorem for the solution of an inverse spectral problem**, *Caspian Journal of Mathematical Sciences*, **1** (2012) 80-87.

- A. Neamaty, A. Dabbaghian and S. Mosazadeh, **Differential equations with a singularity and turning point of second orde**r, *Int. J. Math. Anal.*, **2** (2008) 1335-1342.

- موسی‌زاده، سیدسیف‌اله، **ریشه‌ها، مبانی و سیر تکاملی نظریه استورم‌لیوویل**، فرهنگ و اندیشه ریاضی، سال 36، شماره 6، صص 67 تا 87، 1396.

2- Conference Papers

- S. Mosazadeh and F. Kiyaee, **On the eigenvalues of a non-linear Sturm-Liouville boundary value problem**, 1th First International Conference on Boundary Value Problems and Applications, University of Tabriz, Tabriz, Iran, 2018.

- S. Mosazadeh, **On the uniqueness of the solution of the inverse problem for an Sturm-Liouville operator with discontinuity conditions on a symmetric interval**, 48th Annual Iranian Mathematics Conference, Bu-Ali Sina University, Hamedan, Iran, 2017.

- S. Mosazadeh, **Inverse problem for a singular differential operator with a spectral parameter in boundary conditions**, 48th Annual Iranian Mathematics Conference, Bu-Ali Sina University, Hamedan, Iran, 2017.

- S. Mosazadeh, Hikmet Kemaloglu and Emrah Yilmaz, **THE STABILITY OF THE INVERSE PROBLEM WITH AN INTEGRO-DIFFERENTIAL OPERATOR**, 2ND INTERNATIONAL CONFERENCE ON COMPUTATIONAL MATHEMATICS AND ENGINEERING SCIENCES-(CMES2017), 20-22 MAY 2017, ISTANBUL, TURKEY.

- S. Mosazadeh and Hikmet Kemaloglu, **AN INVERSE PROBLEM FOR DIRAC OPERATOR AND THE STABILITY THEOREM**, 2ND INTERNATIONAL CONFERENCE ON COMPUTATIONAL MATHEMATICS AND ENGINEERING SCIENCES-(CMES2017), 20-22 MAY 2017, ISTANBUL, TURKEY.

- S. Mosazadeh, **Inverse problems for systems of delay differential equations**, Conference on Dynamical Systems and Geometric Theories, Shahid Bahonar University of Kerman, Kerman, Iran, 2016.

- S. Mosazadeh, **A numerical algorithm for determining the coefficients of an indefinite Sturm-Liouville problem with one turning point**, Conference on Dynamical Systems and Geometric Theories, Shahid Bahonar University of Kerman, Kerman, Iran, 2016.

- S. Mosazadeh, **Eigenfunction expansion for a Sturm-Liouville boundary value problem on a finite interval**, 47th Annual Iranian Mathematics Conference, Kharazmi University, Karaj, Iran, 2016.

- S. Mosazadeh, **Canonical solutions of selfadjoint boundary value problems consisting of diffusion and heat equations**, 47th Annual Iranian Mathematics Conference, Kharazmi University, Karaj, Iran, 2016.

- S. Mosazadeh, **The singular Sturm-Liouville operator and stability theorem**, 12th Seminar on Differential Equations and Dynamical Systems, University of Tabriz, Tabriz, Iran, 2015.

- S. Mosazadeh, A. Neamaty and Y. Khalili, **The connection between the turning and singular points in the Sturm-Liouville problems**, 10th Seminar on Differential Equations and Dynamical Systems, University of Mazandaran, Babolsar, Iran, 2015.

- S. Mosazadeh, **Infinite product representation of solution of an inverse spectral problem**, The 6th Conference & Workshop on Mathematical Chemistry, Persian Gulf University, Bushehr, Iran, 2013.

- S. Mosazadeh and M. Bagherzadeh, **A Uniqueness theorem of the solution of an inverse spectral problem,** Proc. 19th seminar in Math. Anal. Appl., University of Mazandaran, Babolsar, Iran, 2011.

- S. Mosazadeh and A. Neamaty, **Stability of inverse eigenvalue problem with singularities,** Proc. 19th seminar. Math. Anal. Applications, University of Mazandaran, Babolsar, Iran, 2011.

- S. Mosazadeh and M. Safapour, **Solving inverse problems for Sturm-Liouville operators with one turning point,** Proc. 42th Annual. Iranian. Math. Conference, Vali-e-Asr University, Rafsanjan, Kerman, Iran, 2011.

- S. Mosazadeh and M. Bagherzadeh, **An inverse spectral problem with poles and turning points**, Proc. 42th Annual. Iranian. Math. Conference, Vali-e-Asr University, Rafsanjan, Kerman, Iran, 2011.

- S. Mosazadeh and A. Neamaty, **Infinite Product Representation of solutions of Sturm-Liouville Operator with Singularities,** Proc. 5th Seminar on Linear Algebra, University of Mazandaran, Babolsar, Iran, 2009.

- S. Mosazadeh, **On the canonical solution of Sturm-Liouville problem with Turning point of order 4m,** Proc. 18th seminar in Math. Anal. Appl., Tarbiat Moallem University, Karaj, Iran, 2009.

- S. Mosazadeh, **Differential Equations with Singularity and Turning Point of Second Order,** Proc. 17th seminar in Math. Anal. Appl., Arak University, Arak, Iran, 2008.

- S. Mosazadeh and A. Neamaty, **The Asymptotic Behavior of the solution and Eigenvalues of Differential Equations with Poles and**

Turning Points, Proc. 8th seminar in Diff. Equ. Dyn. Syst. Appl., Isfahan University of Technology, Isfahan, Iran, 2008.

- S. Mosazadeh and A. Neamaty, **The eigenvalues of differential equations with singularities and turning points,** Proc. 38th Annual. Iranian. Math. Conference, Zanjan University, Zanjan, Iran, 2007.

INVITED REVIEWER FOR JOURNALS

- Inverse Problems
- Journal of Inequalities and Applications
- Hacettepe Journal of Mathematics and Statistics
- Computational Methods for Differential Equations
- Advanced Research in Pure Mathematics
- Caspian Journal of Mathematical sciences
- Communications Faculty of Sciences University of Ankara Series A1 Mathematics and Statistics
- Mathematical Reviews (published by the American Mathematical Society)
- Member of Editorial Board of "Iranian Journal of Mathematical Chemistry"
- Member of Editorial Board of the journal "Mathematics Interdisciplinary Research"

INVITED REVIEWER FOR CONFERENCES

- 10th Seminar on Differential Equations and Dynamical Systems, University of Mazandaran, Babolsar, Iran, 2013
- THE THIRD INTERNATIONAL CONFERENCE ON COMPUTATIONAL MATHEMATICS AND ENGINEERING SCIENCES (CMES-2018), MAY 04 - 06, 2018, CYPRUS

GRADUATE AND UNDERGRADUATE COURSES

- Differential and Integral Calculus 1,2,3
- Ordinary Differential Equations
- Mathematical Analysis 1,2
- The Foundations of Mathematics
- Real Analysis
- Theory of Ordinary Differential Equations
- Integral Equations
- Asymptotic Analysis
- Sturm-Liouville Theory

Ph.D COURSES

- Integral Equations
- Asymptotic Analysis
- Sturm-Liouville Theory