

Behrouz Edalatzadeh

Curriculum vitae

Personal Information

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- ✉ Department of Mathematics, Faculty of Science, Razi University, Kermanshah, Iran

Scientific Information

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Google Scholar: <http://scholar.google.com/citations?user=oEEJq2AAAAAJhl=en>
Mathscinet: <https://mathscinet.ams.org/mathscinet/MRAuthorID/877662>
Mathematics Genealogy: <https://www.genealogy.math.ndsu.nodak.edu/id.php?id=144380>
zbMath: <https://zbmath.org/authors/edalatzadeh.behrouz>

Education

- 2010 **Ph.D. in Mathematics**
Department of Mathematics, Shahid Beheshti University, Tehran, Iran.
Dissertation Title: Multiplier, Cover and Non-abelian tensor product of Lie algebras.
- 2005 **M.Sc. in Mathematics**
Department of Mathematics, University of Tehran, Tehran, Iran.
Thesis Title: Free resolution of monomial ideals.
- 2003 **B.Sc. in Mathematics**
Department of Mathematics, University of Kashan, Kashan, Iran

Positions Held

- 2010 to date Assistant Professor, Department of Mathematics, Razi University, Kermanshah, Iran.
- 2013 - 2014 Non-Resident Researcher, Institute for Studies in Theoretical Physics and Mathematics (IPM), Iran.
- 2005 to 2010 Instructor, Department of Mathematics, Shahid Beheshti University, Tehran, Iran.

Research Interests

- Algebra, (Nonassociative Algebras) and group theory,
- Homology and cohomology of groups, Lie and Leibniz algebras and crossed modules,
- Special topics in extension theory, Schur multiplier and the non-abelian tensor product.

Publications

Journals

- A. Salemkar, **B. Edalatzadeh**, M. Araskhan, Some inequalities for the dimension of the c-nilpotent multiplier of Lie algebras, *Journal of Algebra* 322(2009) 1575–1585.
- A. Salemkar, H. Tavalaei, H. Mohammadzadeh, **B. Edalatzadeh**, On the non-abelian tensor product of Lie algebras, *Linear & Multilinear algebra* 58(2010), 333-341.
- A. Salemkar, **B. Edalatzadeh**, H. Mohammadzadeh, On covers of perfect Lie algebras, *Algebra Colloquium* 18(3) (2011), 419-427.
- F. Saeedi, A. Salemkar, **B. Edalatzadeh**, Some properties of the Schur multiplier of a pair of Lie algebras, *Journal of Lie theory* 21(2011), 491-498.
- **B. Edalatzadeh**, On Hochschild-Serre Spectral Sequence of Lie algebras, *Journal of Algebra*, 355(1) (2012), 61–66.
- A. Salemkar, **B. Edalatzadeh**, The multiplier and the cover of direct sums of Lie algebras, *Asian-European Journal of Mathematics*, 5(2) (2012).
- **B. Edalatzadeh**, Some notes on the Schur multiplier of a pair of Lie algebras, *Journal of Lie theory*, 23(2013), 483-492.
- A. Salemkar, **B. Edalatzadeh**, H. Mohammadzadeh, Inequalities for the second cohomology of finite dimensional Lie algebras, *Proc. Amer. Math. Soc.* 142(2014), 121-127
- **B. Edalatzadeh**, Capability of crossed modules of Lie algebras, *Comm. Algebra*, 42(8) (2014) 3366-3380.
- **B. Edalatzadeh**, Some upper bounds on the dimension of the Schur multiplier of a pair of nilpotent Lie algebras, *Turkish Math. J.* 40 (2016) 1020 - 1024.
- **B. Edalatzadeh**, B. Veisi, Some notes on the second homology of Leibniz algebras, *Comm. Algebra* 2018, to appear.
- **B. Edalatzadeh**, P. Pourghobadian, Leibniz algebras with small derived ideal, *J. Algebra* 501(2018) 215-224.
- **B. Edalatzadeh**, H. Mohammadzadeh, Some results on perfect groups, *Journal of Advanced Mathematical Modeling* 8 (2018), 85-94.
- **B. Edalatzadeh**, SN. Hosseini, Characterizing nilpotent Leibniz algebras by a new bound on their second homologies, *Journal of Algebra* 511 (2018), 486-498.
- **B. Edalatzadeh**, Universal central extensions of Lie crossed modules over a fixed Lie algebra, *Applied Categorical Structures* 27(2019), 111-123.
- SN. Hosseini, **B. Edalatzadeh**, AR. Salemkar, The second relative homology of Leibniz algebras *Journal of Pure and Applied Algebra* 224 (2020), 206-217.
- SN. Hosseini, **B. Edalatzadeh**, AR. Salemkar, The non-abelian tensor product and the second homology of Leibniz algebras *Communications in Algebra* 48 (2020), 759-770
- **B. Edalatzadeh** A non-abelian tensor product of precrossed modules in lie algebras, *Communications in Algebra* 48 (2020), 1591-1600.
- **B. Edalatzadeh**, SN. Hosseini, AR. Salemkar, On characterizing pairs of nilpotent Lie algebras by their second relative homologies, *Journal of Algebra* 549(2020), 112-127.
- SN. Hosseini, **B. Edalatzadeh**, AR. Salemkar, Characterizing nilpotent Leibniz algebras by their multiplier, *Journal of Algebra* 578(2021), 356-370.
- **B. Edalatzadeh**, A. Javan, AR. Salemkar, Non-abelian tensor product of precrossed modules in Lie algebras, structure and applications, *Communications in Algebra* 50 (3)(2022), 927-939.
- G. Eghbali Kalhor, **B. Edalatzadeh**, AR. Salemkar, Extra-special Leibniz superalgebras, *Forum Mathematicum* 35 (5)(2023), 1199-1209.

- **B. Edalatzadeh**, S.N. Hosseini, A.R. Salemkar, On the second relative homology of Leibniz algebras, Advanced Studies: Euro-Tbilisi Mathematical Journal 17 (2023), 57-69.
- **B. Edalatzadeh**, G.E. Kalhor, A.R. Salemkar, The Liezation of Leibniz superalgebras, Quaestiones Mathematicae (2025), 1-17.
- **B. Edalatzadeh**, A.R. Salemkar, S.N. Hosseini, A non-abelian exterior product of Hom-Leibniz algebras, Communications in Algebra (2025), 1-17
- B. Arvin, **B. Edalatzadeh**, A.R. Salemkar, A new notion derived from the deep commuting graph, Int. J. Group theory, to appear, 2025
- A. Asadi, M. Araskhan, **B. Edalatzadeh**, S. Heidarian, The nilpotent multiplier of Leibniz algebras, Bulletin of the Iranian Mathematical Society 51 (2025), 1-18.

Books

- M.T. Darvishi, **B. Edalatzadeh**, Fundamentals of Matrices and Linear algebra, 2nd Edition 2022, In Persian.
- M.T. Darvishi, **B. Edalatzadeh**, Numerical Linear algebra, 2nd Edition 2021, In Persian.

Conferences

- Toral rank conjecture for a special class of Lie algebras, 22nd Iranian algebra seminar, 2016.
- The precise center of pre-crossed modules over a fixed-base group, 10th Iranian Group Theory Conference, 2018.
- Capability of Lie algebras with a Heisenberg summand, 26th Iranian Algebra seminar, 2019.
- Some inequalities for the dimension of the second homology of nilpotent Leibniz algebras, 27th Iranian Algebra seminar, 2022.
- Chevalley-Eilenberg homology and Loday homology of Lie algebras, 53rd Iranian Math. Conference, 2022.

Teaching Experiences

2012 to date **Graduate Courses**

- Finite groups theory,
- Representation of finite groups,
- Advanced Algebra,
- Lie Algebras I,
- Geometry of Manifolds

2005 to date **Undergraduate Courses** (*Selected Items*)

- Algebra 1,2,3 (Group theory, Ring theory and Module theory).
- Linear Algebra,
- Calculus 1,2,3,
- Elementary algebraic geometry,
- Elementary algebraic topology,
- Logic Foundations
- Foundations of Mathematics

Advisory for Graduate Programs

- A. Kooshki, Perfect pre-crossed and crossed modules, Razi University, 2013.
- S. Bahrami, Capable crossed modules, Razi University, 2014.
- P. Soufivand, Covering, avoidance and conjugacy properties in subalgebras of a solvable Lie algebra, 2015.

- R. Safaeizadeh, The Baer invariants of precrossed modules, 2016, Razi University.
- H. Vaysi, Some results on commuting degree and commuting degree of π -elements a finite group, 2016, Razi University.
- K. Hayati, Maximal subalgebras and abelian subalgebras of maximal dimension in Lie algebras, 2017, Razi University.
- P. Pourghobadian, Classifying nilpotent and non-elementary Leibniz algebras, 2017, Razi University.
- F. Mabadi, on the liezation and representation of Leibniz algebras, 2017, Razi University.
- V. Jashni, Some results on the Chermak-Delgado lattice of a finite group 2018, Razi University.
- B. Haghi, Some results on the conjugacy classes of non-nilpotent subgroups in a finite group, 2018, Razi University.
- A. Javan, Crossed and pre-crossed modules of Lie algebras, 2019, Shahid Beheshti University.
- SN. Hosseini, The Schur multiplier of Leibniz algebras, 2019, Shahid Beheshti University.
- S. Nansy, The anticenter subalgebra in Leibniz algebra 2020, Razi University.
- G. Eghbali Kalhor, Multipliers of Leibniz superalgebras, 2022, Razi University.
- Kh. Badri, Non commuting graph of groups, 2024, Razi University.
- D. Javadi, On supergraph of groups, 2025, Razi University.

Selected Skills

Computer **Mathematical softwares:** Latex, Gap, Maple.
Skills

Language Persian(Native Language), English(Advanced Knowledge).
Skills