

## 1) PERSONAL Data

- **NAME:** Hossein
- **SURNAME:** Eshraghi
- **D.O.B:** Jan 07 1981
- **Current Position:** Assistant Professor, Department of Pure mathematics, University of Kashan
- **Postal Address:** Department of Pure Mathematics, Faculty of Mathematical Sciences, University of Kashan, P.O Box 87317-51167, Kashan, Iran
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## 2) EDUCATION:

1997-2001 High School Diploma in Mathematical Sciences

2001--2005 Shahr-e-Kord University, B. SC in Pure Mathematics

2005-2007 Teacher Training University (Now known as Kharazmi University), M.SC in Pure Mathematics (Algebra), Supervisor: Professor M.T. Dibaei

2007-2012 Isfahan University, Ph.D in Algebra (Representation theory of Algebras), Supervisor: Professor Sh. Salarian; advisor: Professor Javad Asadollahi

## 3) QUALIFICATIONS/ HONORS/ AWARDS/ ASSOCIATION MEMBERSHIP

- **Diploma in Mathematical Sciences, 2001**
- **B. Sc in Pure Mathematics, 2005**
- **M.Sc in Pure Mathematics (Algebra), 2007**
- **Ph.D in Pure Mathematics (Representation theory of Algebras), 2012**
- **Top Student in B. Sc Class**
- **Top Student in M.Sc Class**
- **Ranked first in Ph.D entrance exam (University of Isfahan), 2007**
- **Ranked first in Ph.D entrance exam (University of Shahid Beheshti), 2007**
- **Chosen in the National Students Olympiad (held internationally in the last stage), 2004**
- **Chosen in the National Mathematics Competitions, 2004**
- **Student Researcher at Institute for research in fundamental sciences (IPM), Tehran**

- Student Researcher at University of Bielefeld, Germany, 2010-2011
- Guest Researcher at Capital Normal University, Beijing, China, Jan-Feb. 2018

#### 4) PROFESSIONAL EXPERIENCE:

- TA, University of Isfahan
- Instructor, University of Isfahan
- Assistant Professor at University of Kashan

#### 5) RESEARCH INTERESTS

- Representation theory of Algebras
- Commutative Algebra
- Homological Algebra

#### 6) PUBLICATIONS:

- 1- *On the homotopy category of projective and injective representations of quivers (joint with J.Asadollahi, R.Hafezi, and Sh.Salarian), J. Algebra (346), no.1, 2011, 101-115.*
- 2- *Total acyclicity for complexes of representations of quivers (joint with R.Hafezi, and Sh. Salarian), [Comm. Algebra 41 \(2013\), no. 12](#), 4425–4441.*
- 3- *Gorenstein projective modules over triangular matrix rings (joint with R.Hafezi, Sh .Salarian and Z.W. Li), [Algebra Colloq. 23 \(2016\), no. 1](#), 97–104.*
- 4- *Cotorsion theory in the category of quiver representations (joint with R. Hafezi, E.Hosseini and Sh. Salarian), [J. Algebra Appl. 12 \(2013\), no. 6](#), 1350005, 16 pp.*
- 5- *The Auslander-Reiten translation in morphism categories, [J. Algebra Appl. 13 \(2014\), no. 3](#), 1350119, 12 pp.*
- 6- *Existence of almost split sequences via regular sequences, [Bulletin of Australian Mathematical Society](#), [88 \(2013\), no. 2](#), 218–231.*
- 7- *Representation dimension of generalized path algebras of cyclic quivers, [Comm. Algebra 45 \(2017\), no. 6](#), 2296–2305.*
- 8- *Representation dimension via tilting theory, [Journal of Algebra](#), [494 \(2018\)](#), 77-91.*

- 9- *Auslander-Reiten Conjecture in a dual vein (joint with Ali Mahin-Fallah), Algebras and Representation Theory 24(2021), 1279-1294.*
- 10- *The homotopy category of cotorsion flat modules (joint with Ali Hajizamani), Applied Categorical Structures 29 (2021), 213-233.*
- 11- *Homotopy category of cotorsion flat representations of quivers, Math. Interdisc. Res. 5 (2020) 279 -294.*
- 12- *Some Homological Conjectures for group rings (joint with Ali Hajizamani), preprint, 2022.*
- 13- *Determination of some almost split sequences in morphism categories (joint with Rasool Hafezi), Journal of Algebra, 633(1) (2023), 88-113.*
- 14- *Injective generation of the derived category and finitistic dimension conjecture, Arch. Der. Math. 123(2024) 593-604.*
- 15- *From morphism categories to functor categories (joint with Rasool Hafezi), preprint, 2023.*
- 16- *Silting modules and universal localizations for algebras with finite type factors, preprint, 2024.*

۱۷- حدس اوسلندر-ریتن برای حلقه های گرنشتاین از بعد کرول حداقل ۲، ریاضی و جامعه، دوره ۷، شماره ۱، ۱۴۰۱.

۱۸- مروری بر حدس اوسلندر-ریتن و برخی حدس های مرتبط با آن، فرهنگ و اندیشه ریاضی، دوره ۴۲، شماره ۱، ۱۴۰۲.

## 7) LANGUAGE SKILLS

Language	SPEAKING	READING	WRITING
ENGLISH	Fluent	Fluent	Fluent

## 8) (Selected) Seminars and Conferences

- *Advanced School and Conference on Homological and Geometrical Methods in Representation Theory, 18 January -5 February 2010, ICTP, Italy.*
- *CIMPA-UNESCO-IPM School On Representation Theory of Algebras. June, 15-25, 2008. Tehran, Iran.*
- *3 rd, 4 th and 5 th Seminar on Commutative Algebra and related topics; 2006, 2007 (IPM) and 2008 (Isfahan University of Technology).*
- *20 th Seminar on Algebra, Tarbiat Moallem University, April, 22-23, 2009. Tehran, Iran.*
- *Workshop on Representation Theory of Algebras, Oct 2012, IPM-Tehran, Iran.*
- *Mini conference on commutative algebra, 2016, IPM-Tehran, Iran.*
- *University of Isfahan and IPM- Isfahan second seminar on representations of algebras (ISRA II), December 1-2, 2017, Isfahan, Iran.*
- *University of Isfahan and IPM- Isfahan third seminar on representations of algebras (ISRA III), November 20-22, 2018, Isfahan, Iran.*
- *University of Isfahan and IPM- Isfahan 4<sup>th</sup> seminar on representations of algebras (ISRA IV), 2019, Isfahan, Iran.*
- *The 9<sup>th</sup> Isfahan seminar on representations of algebras (ISRA V), 2024, Isfahan, Iran.*

## 9) Lectures and talks

- *On the homotopy categories of representations of a quiver, 5th conference on commutative algebra and related topics, Isfahan University of Technology, 2008.*
- *A survey on representation dimension of artin algebras, conference paper, 47th Annual Iranian Mathematics conference, Kharazmi University, Karaj, Iran, 2016.*

- *The representation dimension of Gorenstein artin algebras of finite Cohen-Macaulay type, IPM-Isfahan seminar on representation theory of Artin algebras, October 19-20, 2016.*
- *Certain non-projective modules in tilting theoretic arguments, 48<sup>th</sup> Annual Iranian Mathematics conference, Bu Ali University, Hamedan, Iran, 2017.*
- *On derived equivalences of Artin algebras, The 14<sup>th</sup> seminar on commutative algebra and related topics, IPM, Tehran, January 3-4, 2018.*
- *A note on simple functors, 49<sup>th</sup> Annual Iranian Mathematics Conference, Iran University of Science and Technology, Iran, 2018*
- *Auslander-Reiten conjecture for Gorenstein rings and algebras, ISRA III, November 2018, Isfahan, Iran.*
- *The homotopy category of cotorsion flat modules, CIMPA-UI-IPM Isfahan school and conference on representations of algebras, April 7-19, 2019, Isfahan, Iran.*
- *A property of path algebras of finite representation type, 50<sup>th</sup> Annual Iranian Mathematics Conference, University of Shiraz, Shiraz, Iran, 2019*
- *Homological conjectures for group rings, The 17th (Virtual) Seminar on Commutative Algebra and Related Topics, IPM, 2021.*
- *On injectivity of certain Gorenstein injective modules, The 51th Annual Iranian Mathematics Conference, University of Kashan, Kashan, Iran, 2021.*
- *Universal localizations and Auslander-Reiten conjecture, 4<sup>th</sup> international conference on computational algebra, number theory, and applications, university of Kashan, Kashan, Iran 2023.*
- *A note on injective generation of the derived category of group rings, 55<sup>th</sup> Annual Iranian Mathematics Conference, Ferdowsi University, Mash'had, Iran 2024.*