

Curriculum Vitae - Javad Asadollahi

• Contact Information

Department of Pure Mathematics,
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University of Isfahan,
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and
IPM-Isfahan,
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Isfahan, Iran
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• Education

Ph. D., Tarbiat Modarres University (1997 - 2002)
Thesis: Results on the finiteness of local cohomology modules and minimal flat resolutions of certain modules
Supervisor: Hossein Zakeri

M. Sc., Isfahan University of Technology (1995 - 1997)
Thesis: Lie isomorphisms in prime rings with involution
Supervisor: Hossein Khabbazzian

B. Sc. in Mathematics, Isfahan University of Technology (1991 - 1995)

• Research Topics

Representation Theory of Algebras, Homological Algebra, Commutative Algebra, Category Theory, and Algebraic Geometry.

• Academic positions

- Professor, University of Isfahan (2011 - present)
- Associate Professor, University of Isfahan, Isfahan, Iran (2010 - 2011)
- Associate Professor, Shahrekord University, Shahrekord, Iran (2006 - 2010)
- Assistant Professor, Shahrekord University, Shahrekord, Iran (2002 - 2006)

• Administrative Roles

- Head, Department of Pure Mathematics, University of Isfahan (2025 - present)
- Scientific Council Member, School of Mathematics, IPM, Tehran (2014 - present)
- Presidential Representative, University Research Council (2019 - 2022)
- Dean, Faculty of Sciences, University of Isfahan (2018 - 2020)
- Head, Promotion Committee, Faculty of Sciences, University of Isfahan (2018 - 2020)

- Co-founder and Head of the IPM-Isfahan, Isfahan branch of the Institute for Research in Fundamental Sciences (2012 - 2016)
- Vice-Head of Research, Faculty of Sciences, University of Isfahan (2012 - 2016)
- Member of the Promotion Committee, Faculty of Sciences, University of Isfahan (2012 - 2016)

• Teaching Experience

Undergraduate Courses: Basics of Algebra, Linear Algebra, Differential Equations, Elementary Algebraic Geometry, Number Theory, Algebra I (Group Theory), Algebra II (Rings and Fields), Set Theory, Calculus I and II, Mathematical Engineering.

Graduate Courses: Advanced Algebra, Homological Algebra, Category Theory, Representation Theory of Algebras, Topics in Homological Algebra, Higher Homological Algebra, Triangulated Categories.

Recognized among the top lecturers at the University of Isfahan (Top 10 out of 700 faculty members, 2016 - 2019)

• Editorial activity

- Co-founder and one of the Editors-in-Chief, *Annals of Representation Theory* (2022 - present)
- Editorial Board Member, *Bulletin of the Iranian Mathematical Society* (2024 - present)
- Lead Guest Editor, *Bulletin of the Iranian Mathematical Society*, Special Volume dedicated to ISCRA (2019)
- Editorial Board Member, *Mathematics and Society*, Persian journal (2013 - present)

• Research Visits

- IHES, Paris, France (July - September 2025)
- Nanjing University of Information Science and Technology, China (August 2024)
- University of Cologne, Germany (May - June 2024)
- IHES, Paris, France (September 2023 - April 2024)
- Aarhus University, Denmark (July 2022)
- IHES, Paris, France (January - June, 2022)
- University of Leicester, UK (June - July 2019)
- ICTP, Trieste, Italy (March - April 2018)
- ICTP, Trieste, Italy (June - July 2017)
- Northeastern University, Boston, USA (April 1 - 30, 2017)
- University of California-Berkeley, USA (September 2016 - March 2017)

- Max-Planck Institute for Mathematics (MPIM), Bonn, Germany (March 2016)
- NTNU, Trondheim, Norway (July - August, 2015)
- Max-Planck Institute for Mathematics (MPIM), Bonn, Germany (March 2015)
- IHES, Paris, France (March 2013)
- Bielefeld University, Germany (August 2012)
- Beijing Normal University (BNU), Beijing, China (March - April 2012)
- NTNU, Trondheim, Norway (June - July 2011)
- IHES, Paris, France (March 2011)
- Paderborn University, Germany (July 2010)
- Tata Institute of Fundamental Research (TIFR), Mumbai, India (March 2010)
- IHES, Paris, France (August 2009)
- Tata Institute of Fundamental Research (TIFR), Mumbai, India (December 2007)
- IHES, Paris, France (March - April 2007)
- Tata Institute of Fundamental Research (TIFR), Mumbai, India (August 2005)
- IHES, Paris, France (January - February 2005)
- ICTP, Trieste, Italy (June - July 2004)
- ICTP, Trieste, Italy (July - August 2003)
- Tata Institute of Fundamental Research (TIFR), Mumbai, India (January 2003)
- Martin Luther University, Halle, Germany (February - July 2001)

• Selected Conferences and Talks

- Nanjing University, Nanjing, China (2024)
Strong Purity and Phantom Morphisms
- NTNU, Trondheim, Norway (2024)
On 1-Gorenstein algebras
- Aarhus University, Aarhus, Denmark (2023)
On Tau-tilting subcategories
- Nanjing University of Information Science & Technology, China (2022)
An elementary introduction to persistence modules
- Keynote speaker, 51st Iranian Mathematical Conference, Iran (2021)
Higher-dimensional ideal approximation theory
- Fourth International Colloquium on Representations of Algebras and its Applications, Colombia (2020)
Monomorphism category of n-cluster tilting subcategories

- Eighty-fourth BLOC meeting, Leicester, UK (2019)
nZ-Gorenstein cluster tilting subcategories
- Math. Department, University of Leicester, UK (2019)
Gorenstein homological algebra
- Mathematics Seminar, School of Mathematics, ICTP, Trieste, Italy (2018)
Relative Auslander's Formula
- Maurice Auslander Distinguished Lectures and International Conference, Woods Hole, Massachusetts, USA (2017)
Categorical resolutions of bounded derived categories of artin algebras
- Northeastern University, Boston, USA (2017)
Auslander Formula: Variations and Applications
- University of Nebraska, Lincoln, USA (2017)
Categorical resolutions of bounded derived categories of artin algebras
- International Conference on Representations of Algebras, Bielefeld, Germany (2012)
On the derived dimension of abelian categories
- Capital Normal University (CNU), Beijing, China (2012)
Cotorsion theories and Kaplansky classes
- Beijing Normal University (BNU), Beijing, China (2012)
On the homotopy category of complexes
- Institutt for Matematiske fag, NTNU, Norway (2011)
Cohomology theories in the pure derived category of flats
- Commutative Algebra and Applications to Algebraic Geometry and Combinatorics, Galatasaray University, Turkey (2010)
On the Pure Derived Category of Flat Modules
- ICM, Madrid, Spain (2006)
Totally Reflexive Sheaves
- Advanced School and Conference on Representation Theory and Related Topics, Trieste, Italy (2006)
Tate Cohomology for Triangulated Categories
- Indian Institute of Technology (IIT), Mumbai, India (2005)
Gorenstein Homological Algebra
- Tata Institute of Fundamental Research (TIFR), Mumbai, India (2005)
Gorenstein Modules and Cohomology Theories based on them
- International Mediterranean Congress of Mathematics, Almeria, Spain (2005)
Gorenstein Local Cohomology Modules
- Amiens University, Amiens, France (2005)
Gorenstein Homological Algebra
- Representation Theory and it's Applications, Uppsala, Sweden (2004)
Tilting and Cotilting Modules over Formal Triangular Matrix Rings

- International Conference on Algebras, Modules and Rings, Lisbon, Portugal (2003)
Homological Dimensions of Modules over Commutative Noetherian Rings
- Current Trends in Commutative Algebra, Levico, Italy (2002)
On Primes dual to associated primes and application to injective covers
- Universitat i Oslo, Oslo, Norway (2002)
A Survey of Minimal Injective and Minimal Flat Resolution of Modules
- Leipzig University, Leipzig, Germany (2001)
On the Minimal flat resolution of modules over Cohen-Macaulay rings
- Martin Luther University, Halle, Germany (2001)
Cofiniteness problem in local cohomology theory

• **Work as Organizer**

- Founder and co-organizer, Annual Isfahan Seminar on Representations of Algebras (ISRA II-IX, 2017 - 2024)
- A Celebration of Golod's Mathematical Legacy, Warwick, UK (April 2026)
- Scientific Committee Member: International Conference on Representations of Algebras (ICRA), Shanghai, China (August 2024)
- Workshop on Tau-Tilting Theory and Related Topics (June 2021)
- Ganj's Flash Talks, Isfahan (March 2021)
- Scientific Committee Member: International Conference on Representations of Algebras (ICRA), NTNU, Norway (November 2020)
- 7th Conference on Frontiers in Mathematical Sciences (January 2020)
- CIMPA-UI-IPM School and Conference on Representations of Algebras (April 2019)
- Workshop on DG Algebras and Morita Type Theorem by Rickard (September 2014)
- Workshop on 2-Categorical Covering Theory and Derived Equivalences (May 2014)
- Workshop on Stable Homological Algebra (April 2014)
- Workshop on Higher Dimensional Auslander-Reiten Theory (May 2013)
- IPM Workshop on Representations of Artin Algebras (October 2012)
- IPM Workshop on Cluster Algebras and Quiver Representations (June 2010)
- 5th Seminar on Commutative Algebra and Related Topics (December 2008)
- CIMPA-UNESCO-IPM School on Representation Theory of Algebras (June 2008)
- An Introductory Workshop on Representation Theory of Algebras (June 2008)

Some Invitees (Alphabetic order)

Lidia Angeleri Hügel (Università degli Studi di Verona), Hideto Asashiba (Shizuoka University), Silvana Bazzoni (Università di Padova), Karin Baur (Universität Graz), Apostolos Beligiannis (University of Ioannina), Aslak Bakke Buan (NTNU), Selvaraj Chelliah (Periyar University), Xiao-Wu Chen (University of Science and Technology of China), Erik Darpo (Nagoya University), Soumitra Das (North-Eastern Hill University), Jose Antonio de la Pena (UNAM), Eleonore Faber (University of Leeds), Christof Geiss (Universidad Nacional Autonoma de Mexico), Magnus Hellström-Finnsen (NTNU), Martin Herschend (Uppsala University), Osamu Iyama (University of Tokyo), Srikanth Iyengar (University of Utah), Peter Jørgensen (Aarhus University), Bernhard Keller (University of Paris), Henning Krause (University of Bielefeld), Dirk Kussin (University of Paderborn), Rosanna Laking (University of Verona), Helmut Lenzing (University of Paderborn), Francesca Mantese (University of Verona), Hagen Meltzer (Szczecin University), Intan Muchtadi-Alamsyah (Institut Teknologi Bandung), Thinley Namgyel (Royal University of Bhutan), Amnon Neeman (Australian National University), Pierre-Guy Plamondon (Université Paris-Sud), Sergio Pavon (Università di Padova), Mike Prest (University of Manchester), Idun Reiten (NTNU), Jeremy Rickard (University of Bristol), Claus Michael Ringel (University of Bielefeld), Manuel Saorín (University of Murcia), Jan Stovicek (Charles University), Hugh Thomas (Université du Québec à Montréal), Gordana Todorov (Northeastern University), Laertis Vaso (Uppsala University), Jorge Vitoria (University of Cagliari), Changchang Xi (Beijing Normal University), Yu Zhou (Tsinghua University), Alexander Zimmermann (Université de Picardie).

• Honors

- Regular Associate Member of ICTP, Trieste, Italy (January 2015 - December 2021)
- Junior Associate Member of ICTP, Trieste, Italy (January 2003 - December 2011)
- Elected as one of the top fifteen researchers at the University of Isfahan (2020)
- Recognized as one of the top ten lecturers at the University of Isfahan for three consecutive years, ending (2019)
- Associate Researcher at IPM-Isfahan (2017 - present)
- Awarded the title of Best Young Researcher in Iran by the Institute for Research in Fundamental Sciences (IPM), Tehran (2008)
- Received a grant from the Clay Mathematics Institute (2007)

• Grants

- For 20 years, I have successfully received an annual research grant from the Institute for Research in Fundamental Sciences.
- INSF-NSFC International Joint Research Project Iran-China, 9 billion IRR.
- Ministry of Science, Research, and Technology of Iran, \$35000.
- CIMPA, two times, €12000 and €10500.
- Agence Universitaire De La Francophonie, €3000.

- LMS-Scheme 5, visiting the University of Leicester, £3000.
- International Center for Theoretical Physics, €2000.
- IMU-CDE, four times, total €8000.
- Iran National Science Foundation, 300 000 000 IRR.
- Institute for Research in Fundamental Sciences, 640 000 000 IRR.

• Graduate Students

I supervised more than 30 master students. I also supervised the following Ph.D. students.

- Previous Ph.D. Students:
 - Ali Hajizamani (2009), Assistant professor, Bandar Abbas University.
 - Firuzeh Jahanshahi (2009), Assistant professor, Shahid Bahonar University.
 - Abdolnaser Bahlekeh (2010), Associate professor, University of Gonbad-e-Kavoos.
 - Hossein Eshraghi (2012), Associate professor, University of Kashan.
 - Rasool Hafezi (2012), Nanjing University of Information Science and Technology, Nanjing, China.
 - Esmail Hosseini (2013), Associate professor, Shahid Chamran University.
 - Razieh Vahed (2014), Assistant professor, University of Khansar.
 - Payam Bahiraei (2015), Assistant professor, University of Guilan.
 - Mohammad Hossein Keshavarz (2017), Assistant professor, Nantong University, Nantong, China.
 - Tahereh Dehghanpour Amineh (2018), Non-permanent lecturer, University of Isfahan.
 - Najmeh Asadollahi (2019), Non-permanent lecturer, University of Isfahan.
 - Sara Hemmat (2020), Non-permanent lecturer, University of Isfahan.
 - Somayeh Sadeghi (2021), Postdoc at IPM- Isfahan.
 - Zohreh Karimi (2022) Co-supervised with Rasool Hafezi, NUIST, Nanjing, China.
 - Azadeh Mehregan (2023) Co-supervised with Peter Jørgensen, Aarhus University.
 - Farzad Padashnik (2023) Co-supervised with Hipolito Treffinger, University of Paris.
- Current Ph.D. Students:
 - Omid Khaninasab, Co-supervised with Ahmed Hamed, University of Monastir
Project: Extriangulated categories
 - Zohreh Sourani
Project: Tau-tilting finite algebras
 - Maryam Nazarirad
Project: Metrics on triangulated categories
- Current Postcos:
 - Somayeh Sadeghi
 - Shekoofeh Kimiaei

• Publications

1. With R. Hafezi and S. Sadeghi, *Strongly flat modules via universal localization*, arXiv:2508.06458v1 [math.RT].
2. With R. Hafezi, R. Vahed and Y. Zhang, *On the monomorphism category of large modules*, arXiv:2504.07662 [math.RT].
3. With S. Sadeghi, *The homotopy category of strongly flat modules*, arXiv:2504.02601 [math.AC].
4. With R. Hafezi, S. Sadeghi and Y. Zhang, *Strong purity and phantom morphisms*, arXiv:2410.09852v1 [math.AC].
5. With R. Hafezi, R. Vahed and Z. Sourani, *Covering techniques in higher Auslander-Reiten theory*, J. Math. Soc. Japan, to appear.
6. With S. Sadeghi and H. Treffinger, *On tau-tilting subcategories*, Canadian J. Math, **77** (2025), 975-1012.
7. With R. Hafezi and Y. Zhang, *Relative higher homology and representation theory*, J. Pure Appl. Algebra, **229** (2025) 107924.
8. With F. Padashnik, S. Sadeghi and H. Treffinger, *Extending (τ) -tilting subcategories and (co)silting modules*, Comm. Algebra, **52** (2023), 2148-2166.
9. With R. Hafezi and Z. Karimi, *On 1-Gorenstein algebras of finite Cohen-Macaulay type*, Michigan Math. J. **73** (2023), 853-873.
10. With S. Sadeghi, *Higher ideal approximation theory*, Trans. Amer. Math. Soc. **375** (2022), 2113-2145.
11. With P. Jørgensen, S. Schroll and H. Treffinger, *On the higher torsion classes*, Nagoya Math. J., **248** (2022), 823-848.
12. With A. Mehragan and S. Sadeghi, *Cotorsion classes in higher homological algebra*, J. Pure Appl. Algebra, **226** (2022), 106839.
13. With R. Hafezi and S. Sadeghi, *Monomorphism category of n -cluster tilting subcategories*, Sci. China Math, **65**, (2022), 1343-1362.
14. With R. Hafezi and Z. Karimi, *Brauer-Thrall type theorems for submodule categories*, Comm. Alg. **49** (2021), 4028-4037.
15. With R. Hafezi and S. Sadeghi, *nZ -Gorenstein cluster tilting subcategories*, J. Algebra, **580** (2021), 127-157.
16. With R. Hafezi and M. H. Keshavarz, *Auslander's formula for contravariantly finite subcategories*, J. Math. Soc. Japan. **73**(2) (2021), 329-349.
17. With T. Dehghanpour and R. Hafezi, *On the Gorenstein defect categories*, J. Commut. Algebra **12** (2020), 1-26.
18. With S. Hemat and R. Vahed, *On ideal balanced pairs*, J. Algebra Appl., DOI: 10.1142/S0219498821500651.

19. With R. Hafezi, *On relative Auslander algebras*, Proc. Amer. Math. Soc., **148** (6), (2020) 2379-2396.
20. With S. Hemat and R. Vahed, *Gorenstein flat phantom morphisms*, Comm. Algebra. **48**, (2020) 2167-2182.
21. With N. Asadollahi, R. Hafezi and R. Vahed, *Auslander's Formula: variations and applications*, Kyoto J. Math., **60**(1) (2020), 61-91.
22. With R. Hafezi and R. Vahed, *Derived equivalences of functor categories*, J. Pure Appl. Algebra, **223**, (2019) 1073-1096.
23. With N. Asadollahi, R. Hafezi and R. Vahed, *Duality and Serre functor in homotopy categories*, Comm. Algebra, **46**, (2018) 4377-4391.
24. With R. Hafezi and M. H. Keshavarz, *Injective representations of bound quiver algebras*, J. Algebra Appl., **17** (2018) 1850001 (13 pages).
25. With R. Hafezi and M. H. Keshavarz, *Minimal injective resolutions and Auslander-Gorenstein property for path algebras*, Comm. Algebra, **45** (2017) 2557-2568.
26. With P. Bahiraei, R. Hafezi and R. Vahed, *Sheaves over infinite posets*, J. Algebra Appl., **16** (2017) (25 pages) DOI: 10.1142/S0219498817500268.
27. With R. Hafezi and R. Vahed, *On the recollements of functor categories*, Appl. Categor Struct, **24** (2016) 331-371.
28. With P. Bahiraei, R. Hafezi and R. Vahed, *On relative derived categories*, Comm. Algebra, **44** (2016) 5454-5477.
29. With T. Dehghanpour and R. Hafezi, *On the existence of Gorenstein projective precovers*, Rend. Sem. Mat. Univ. Padova. **136** (2016) 257-264.
30. With R. Hafezi and R. Vahed, *Bounded derived categories of infinite quivers: Grothendieck duality, reflection functor*, Canad. J. Math. **67** (1), (2015) 28-54.
31. With R. Hafezi and R. Vahed, *Gorenstein derived equivalences and their invariants*, J. Pure Appl. Algebra, **218** (2014) 888-903.
32. With R. Hafezi, *On the derived dimension of abelian categories*, Kyoto J. Math., **54** No. 3, (2014) 693-702.
33. With R. Hafezi and Sh. Salarian, *Homotopy category of projective complexes and complexes of Gorenstein projective modules*, J. Algebra, **399** (2014) 423-444.
34. With R. Hafezi, *On the dimensions of path algebras*, Math. Res. Lett. **21** (2014), no. 01, 1-13.
35. With R. Hafezi, *Kaplansky classes and cotorsion theories of complexes*, Comm. Algebra. **42**, no 5, (2014) 1953-1964.
36. With A. Hajizamani and Sh. Salarian, *Periodic flat resolutions and periodicity in group (co)homology*, Forum Math. **24**(2) (2012) 273-287.
37. With Sh. Salarian, *Cohomology theories based on flat sheaves*, J. Algebra, **353** (2011) 93-120.

38. With H. Eshraghi, R. Hafezi and Sh. Salarian, *On the homotopy categories of projective and injective representations of quivers*, J. Algebra, 346 (2011) 101-115.
39. With R. Sazeedeh and Sh. Salarian, *On the local cohomology and support for triangulated categories*, Kyoto J. Math. 51 (2011) 811-829.
40. With F. Jahanshahi and Sh. Salarian, *Generalized divisors and total reflexivity*, Comm. Algebra, 39 (2011) 888-904.
41. With N. Bahlekeh, A. Hajizamani and Sh. Salarian, *On certain homological invariants of groups*, J. Algebra, 335 (2011) 18-35.
42. With Sh. Salarian, *Dimension formulas for modules finite over local homomorphisms*, Taiwanese J. Math. 14 (2010), no. 4, 1677-1687.
43. With N. Bahlekeh and Sh. Salarian, *On the hierarchy of cohomological dimension of groups*, J. Pure Appl. Algebra, 213 (2009) 1795-1803.
44. With F. Jahanshahi and Sh. Salarian, *Complete cohomology and Gorensteinness of schemes*, J. Algebra, 319 (2008) 2626-2651.
45. With Sh. Salarian, *Cohomology theories for complexes*, J. Pure Appl. Alg. 210 (2007) 771-787.
46. With Sh. Salarian, *Complete cohomologies and some homological invariants*, Algebra Colloq., 14 (1) (2007), 155-166.
47. With Sh. Salarian, *On the annihilation of local cohomology modules*, J. Math. Kyoto Univ., 46 (2) (2006), 357-365.
48. With Sh. Salarian, *On the vanishing of ext over formal triangular matrix rings*, Forum Math. 18 (2006), 951-966.
49. With Sh. Salarian, *Gorenstein injective dimension for complexes and Iwanaga-Gorenstein rings*, Comm. Algebra, 34(8) (2006), 3009-3022.
50. With Sh. Salarian, *Tate cohomology and Gorensteinness for triangulated categories*, J. Algebra, 299 (2006), 480-502.
51. With Sh. Salarian, *Cohomology theories based on Gorenstein injective modules*, Trans. Amer. Math. Soc., 358(5) (2006), 2183-2203.
52. With T. Puthenpurakal, *An analogue of a theorem due to Levin and Vasconcelos*, Contemp. Math. 390 (2005), 9-15.
53. With Sh. Salarian, *Cohen-Macaulay dimension of modules over noetherian rings*, Rocky Mountain J. Math., 35 (4) (2005), 1069-1076.
54. With Sh. Salarian, *Lower and upper bound for Cohen-Macaulay dimension*, Bull. Austral. Math. Soc. 71 (2005), 337-346.
55. With R. Enshaei, *Minimal injective resolution of modules and Cohen-Macaulay dimension*, Southeast Asian Bull. of Math. (2005) 29, 17-22.
56. With Sh. Salarian, *Gorenstein test modules*, Comm. Algebra, 33 (10) (2005), 3439-3446.

57. With Sh. Salarian, *Gorenstein injective and Gorenstein flat resolution of modules over Gorenstein rings*, Comm. Algebra, 32 (11) (2004), 4415-4432.
58. With Sh. Salarian, *Buchsbaum and monomial conjecture dimension*, Comm. Algebra, 32(10) (2004), 3969-3979.
59. With Sh. Salarian, *Gorenstein objects in triangulated categories*, J. Algebra, 281 (2004), 264-286.
60. With K. Khashyarmanesh and Sh. Salarian, *On primes dual to associated primes for cotorsion modules*, Indian J. Pure Appl. Math., 35, (2004), no 5, 621-627.
61. With Sh. Salarian, *Generalized Cohen-Macaulay dimension*, J. Algebra 273 (2004), no.1, 384-394.
62. With P. Schenzel, *Some results on associated primes of local cohomology modules*, Japanese J. of Math. (From Nagoya Math. J.) 29 (2003), no. 2, 285-296.
63. With K. Khashyarmanesh and Sh. Salarian, *A generalization of the cofiniteness problem in local cohomology modules*, J. Aust. Math. Soc. 75 (2003), 313-324.
64. With K. Khashyarmanesh and Sh. Salarian, *On the minimal flat resolutions of modules*, Comm. Algebra 30 (2002), no. 8, 3813-3823.
65. With K. Khashyarmanesh and Sh. Salarian, *On the finiteness properties of generalized local cohomology modules*, Comm. Algebra 30 (2002), no. 2, 859-867.
66. With K. Khashyarmanesh and Sh. Salarian, *Local-Global principle for annihilation of general local cohomology modules*, Colloq. Math. 87(1) (2001) 129-136.