

Curriculum Vitae

Massoud Tousi

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• Personal ID

Name : Massoud Tousi
Date of Birth : January 6, 1961
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• Work Address

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• Education

1983–1986
B. Sc. in Mathematics, University of Tehran.

1986–1989
M. Sc. in Mathematics, University of Tehran,
Projects' title : “Modules of Generalized Fractions, Matrices, Determinatel Maps and Di-
mension Theory”,
Supervisor: Professor H. Zakeri.

1989–1995
Ph.D. in Mathematics, University of Tehran,
Thesis' topic: “Generalized Hughes Complexes and Action Certain Groups on Certain
Modules and Complexes”,
Supervisor: Professor H. Zakeri.

• Honors

January 2002-December 2007: Associate Member, International Center for Theoretical Physics (ICTP), Trieste, Italy.

• Research Experiences

- * Generalized Hughes Complexes, Cousin Complex, Complex of Modules of Generalized Fractions, Dualizing Complex,
- * Associated Prime Ideals and their Asymptotic Behavior,
- * On Dual of Some Notions in Commutative Algebra,
- * Singular Set of Modules,
- * Local Cohomology Modules,
- * Tight Closure,
- * Tensor Products of Rings,
- * Pure injective modules,
- * Gorenstein homological dimensions.

• Publications

Research Papers

1. With Sharp, R. Y.; *Comparison of complexes of modules of generalized fractions and generalized Hughes complexes*, Glasgow Math. J. **37** (1995), 55–64.
2. With Sharp, R. Y.; *A characterization of generalized Hughes complexes*, Math. Proc. Cambridge Philos. Soc. **120** (1996), 71–85.
3. With Ahmadi-Amoli, Kh.; *On the singular sets of modules*, Comm. Algebra **24** (1996), 3839–3844.
4. With Bijan-Zadeh, M. H., Tehranian. A.; *On the singular sets of a module*, Proceedings of the 27th Annual Iranian Mathematics Conference (Shiraz, 1996), 399–402, Shiraz Univ., Shiraz, 1996.
5. With Tehranian, A.; *Co-Cohen-Macaulay modules over commutative rings*, Technical Report IPM, **154** (1996).
6. With Jabbari, S. H., Zakeri. H.; *On the comparison of complexes of modules of generalized functions and generalized Hughes complexes*, Honam Math. J. **19** (1997), 1–20.
7. With Divaani-Aazar, K.; *Asymptotic associated and attached prime ideals related to projective modules*, Comm. Algebra **25** (1997), 1129–1142.
8. *Generalized Hughes complexes and ring homomorphisms*, Algebra Colloq. **5** (1998), 337–346.
9. With Khashyarmanesh, K., Salarian. Sh.; *On the local homology theory for Artinian modules*, Acta Math. Hungar. **81** (1998), 109–119.
10. With Dibaei, M. T.; *The structure of dualizing complex for a ring which is (S_2)* , J.Math. Kyoto Univ. **38** (1998), 503–516.

11. With Divaani-Aazar, K.; *Some remarks on coassociated primes*, J. Korean Math. Soc. **36** (1999), 847–853.
12. With Divaani-Aazar, K.; *Asymptotic prime ideals related to exact functors*, Comm. Algebra **27** (1999), 3949–3968.
13. With Divaani-Aazar, K.; *Asymptotic attached prime ideals related to flat modules*, Algebra colloquium **6** (1999), 193–204.
14. With Dibaei, M. T.; *Characterization of rings and modules with serre condition (S_n)* , Southeast Asian Bull.Math. **23** (1999), 213–219.
15. With Divaani-Aazar, K.; *A new defination of associated prime ideals*, Ital. J. Pure Appl. Math. **8** (2000), 99–113.
16. *A note on the dual of Burch's inequality*, J. Pure Appl. Algebra **149** (2000), 101–104.
17. With Dibaei, M. T.; *A generalization of the dualizing complex structure and its application*, J. Pure Appl. Algebra **155** (2001), 17–28.
18. With Zakeri, H.; *Action of certain groups on local cohomology modules and Cousin complexes*, Algebra Colloq. **8** (2001), 441–454.
19. With Pournaki, M. R.; *A note on the countable union of prime submodules*, Int. J. Math. Math. Sci. **27** (2001), 641–643.
20. With Divaani-Aazar, K., Naghipour. R.; *The Lichtenburn-Hartshorne theorem for generalized local cohomology and connectedness*, Comm. Algebra **30** (2002), 3687–3702.
21. With Divaani-Aazar, K., Naghipour. R.; *Cohomological dimension of certain algebraic varities,* Proc. Amer. Math. Soc. **130** (2002), 3537–3544.
22. With Yassemi, S.; *Tensor product of some special rings*, J. Algebra, **268** (2003), 672–676.
23. With Divaani-Aazar, K., Sazeedeh, R.; *On vanishing of generalized local cohomology*, Algebra Colloq., **12** (2005), 213–218.
24. With Divaani-Aazar, K.; *Localization of tight closure in two dimensional rings*, Proc. Indian Acad. Sci. Acad. Math. Sci. **115** (2005), 51–56.
25. With Yassemi, S; *Catenary, locally equidimensional, and tensor product of algebras*, Comm. Algebra, **33** (2005), 1023–1029.
26. With Pournaki, M. R.; *Explicit description of a class of indecomposable injective modules*, Acta Math. Sci. Ser. B Engl. Ed., **25** (2005), 511–514.
27. With Yassemi, S.; *Sequentially Cohen-Macaulay modules under base change*, Comm. Algebra **33** (2005), 3977–3987.
28. With Yassemi, S.; *Tensor products of clean rings*, Glasgow Math. J. **47** (2005), 501–503.
29. With Tehranian, A., Yassemi, S.; *Strong Gorenstein test modules*, Comm. Algebra **34** (2006), 879–882.

30. With Divaani-Azar, K., Esmkhani, M. A.; *Two characterization of pure injective modules*, Proc. Amer. Math. Soc. **134** (2006), 2817–2822.
31. With Divaani-Azar, K., Esmkhani, M. A.; *Some criteria of cyclically pure injective modules*, J. Algebra **304** (2006), 367–381.
32. With Pournaki, M. R., Yassemi, S.; *Tensor products of approximately Cohen-Macaulay rings*, Comm. Algebra **34** (2006), 2857–2866.
33. With Esmkhani, M. A.; *Gorenstein homological dimensions and Auslander categories*, J. Algebra **308** (2007), 321–329.
34. With Esmkhani, M. A.; *Gorenstein injective modules and Auslander categories*, Arch. Math. (Basel) **89** (2007), 114–123.
35. With Tehranian, A., Yassemi, S.; *Characterizing local rings via test modules*, Comm. Algebra **35** (2007), 2524–2532.
36. With Sabzrou, H.; *Associated and attached primes of some graded modules over semigroup rings*, Comm. Algebra **35** (2007), 2793–2809.
37. With Sabzrou, H.; *Local cohomology at monomial ideals in R -sequences*, Comm. Algebra **36** (2008), 37–52.
38. With Yassemi, S.; *The Lichtenbaum-Hartshorne theorem for modules which are finite over a ring homomorphism*, J. Pure Appl. Algebra **212** (2008), 1222–1228.
39. With Sabzrou, H., Yassemi, S.; *Simplicial join via tensor product*, Manuscripta math. **126** (2008), 255–272.
40. With Asgharzadeh, M.; *A unified approach to local cohomology modules using Serre classes*, To appear in Canadian Mathematical Bulletin.
41. With Asgharzadeh, M., Divaani-Azar, K.; *The finiteness dimension of local cohomology modules and its dual notion*, To appear in J. Pure Appl. Algebra.

• Teaching Experiences

Undergraduate courses:

Fundamental of Mathematics,
 Fundamental of Geometry,
 Algebra 1, Algebra 2, Algebra 3,
 Linear Algebra,
 Number Theory,
 Undergraduate Algebraic Geometry,
 Discrete Mathematics,
 Calculus.

Graduate courses:

Advanced Algebra,
 Commutative Algebra 1, Commutative Algebra 2,
 Homological Algebra,
 Cohomology of Groups,
 Local Cohomology,

Cohen-Macaulay Rings,
Algebraic Geometry 1.

• **Advisory for Post Graduate Programs**

M.Sc. Thesis :

1. Hamid Asadi, *Cofinitness of local cohomology modules(1)*, **1999**.
2. Hasaan Habibi, *Cofinitness of local cohomology modules(2)*, **2001**.
3. Mansoreh Radniknam, *Asymptotic behavior of certain associated and attached prime ideals*, **2001**.
4. Hasan Barzeghar, *On annihilators and associated primes of local cohomology modules*, **2002**.
5. Kazem kohansali, *Every local rings is dominated by a one dimensional local ring*, **2002**.
6. Alireza Nazari, *Ideal topologies*, **2003**.
7. Mehdi Mirzaee, *Gorenstein homological dimensions*, **2004**.
8. Masoud Karimi, *Tensor products of commutative algebras over a field*, **2004**.
9. Azar Fakhraei, *On the prime ideal structure of tensor products of algebras*, **2006**.
10. Neda sadat Rasooli, *Linear growth of primary decomposition of ideals*, **2006**.
11. Rasoul Panahi , *Alexander duality*, **2007**.
12. Abbas Bahaadini , *Cohen-Macaulay properties of square-free monomial ideals*, **2007**.

Ph.D. Thesis :

1. Mohammad Ali Esmkhani, *A new notion of canonical modules and its applications*, **2006**.