Curriculum Vitae

Srikanth B. Iyengar

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Recent Positions

July. 2013 –	Professor, University of Utah
Aug. 2012 – Aug. 2014	Willa Cather Professor, University of Nebraska-Lincoln
Sept. 2007 – Aug. 2014	Professor, University of Nebraska-Lincoln

Education

May 1998	Ph. D., Mathematics, Purdue University
Aug. 1994	M. S., Mathematics, Purdue University
July 1991	B. Tech., Computer Science, Indian Institute of Technology-Madras, Chennai, India

Honors

2024	Eisenbud Research Professorship, in the SLMath program "Commutative Algebra", Berkeley, Spring 2024
2022	Invited participant, Hausdorff Institute of Mathematics Trimester Program "Spectral Methods in Algebra, Geometry, and Topology", Bonn, Germany, September–December 2022.
2018	Research Member, "Group Representation Theory and Applications", MSRI, Berkeley, April–May 2018.
2017	Buckingham Scholar, University of Miami, September 2017.
2015	Simons Visiting Researcher Centre De Recerca Matemàtica, Barcelona, Spain, to participate in: Representation Theory, Algebraic Topology and Commutative Algebra (January to June, 2015).
2013	Fellow, American Mathematical Society
2013	Outstanding Research and Creative Achievement in the Sciences College of Arts and Sciences, University of Nebraska
2012	Outstanding Alumnus for 2012–2013 Department of Mathematics, Purdue University, W. Lafayette
2009	Arts and Sciences College Distinguished Teaching Award.

Grants since 2012

June 2020 – May 2025	National Science Foundation Grant, DMS 2001368 Principal Investigator

June 2017 – May 2020	National Science Foundation Grant, DMS 1700985 Principal Investigator
2016	National Science Foundation Con. Grant, DMS DMS-1624050 with Jon F. Carlson and Julia Pevtsova, in support of a summer school and workshop in PIMS, Vancouver, July/August 2016,
2015	National Science Foundation Conference Grant, DMS 1501399 with Brooke Shipley, to support US participants at a program in CRM, Barcelona.
June 2012 – May 2017	National Science Foundation Grant, DMS 1201889 Principal Investigator
August 2012 – July 2013	Simons Fellow in Mathematics
2012	National Science Foundation Conference Grant, DMS 1203469 with Graham Leuschke, Claudia Miller, and Dan Zacharia, for a conference in Syracuse, NY, March 2012.

Ph. D. students

2023 –	Jenna Judd
2023 –	Brendan Murphy
2022 –	Hossein Faridian (Clemson University) joint direction with J. Coykendall
2022 –	Antonia Kekkou
2020 –	Trung C. Chau; joint direction with A. K. Singh
2019 – 2021	Liu Jian (University of Science and Technology, Hefei, China) joint direction with X.-W. Chen, Hefei
2019 –	Daniel McCormick
2019 –	Peter McDonald; joint direction with K. Schwede
2017 – 2020	Janina Carmen Letz
2016 – 2020	Pinches Dirnfeld
2016 – 2019	John Hull
2011 – 2017	Luigi Ferraro; joint direction with L. L. Avramov
2011 – 2016	Jason Lutz; joint direction with L. L. Avramov
2011 – 2016	Haydee Lindo
2011 – 2015	Kat Shultis; joint direction with R. Wiegand
2009 – 2013	Amanda Croll
2006 – 2011	Justin DeVries
2006 – 2011	Micah Leamer; joint direction with R. Wiegand
2006 – 2010	Jesse Burke

2004 – 2009	Hamid Rahmati; joint direction with L. L. Avramov

Post-docs and long-term visitors

2022 –	Tim Tribone
2022 –	Sarasij Maitra
2021 –	James Cameron
2019 – 2023	Josh Pollitz; he was an NSF post-doc, starting 2020 He is currently a faculty member at Syracuse University.
2018 – 2021	Ben Briggs; currently post-doc at SLMath He will be a faculty member at Imperial College, from Fall.

Undergraduate students

2021 Summer	Jonah Garner
2019 – 2021	Charles Barth
2020 Spring	Lia Smith; ACCESS program

Editorial Board

July 2008 –	Journal of Pure and Applied Algebra Since January 2014, I am one of the three managing editors.
March 2014–	London Mathematical Society Editorial Advisor for Bulletin, Journal, Proceedings.
February 2021–	Collectanea Mathematica, Associate Editor.
May 2022–	International Mathematics Research Notices, Editor.

Special volumes edited

[4] *Recent developments in Commutative Algebra*
(co-editors A. Conca, A. Singh), CIME-CIRM course, Levic Terme, July 1–5, 2019, Springer Lec. Notes Math. **2283**, Springer 2021.

[3] *Geometric and topological aspects of the representation theory of finite groups*
(co-editors J. F. Carlson, J. Pevtsova), PIMS Summer School and Workshop, July 27–August 5, 2016, Springer Proc. Math. Stat. **242**, Springer 2018.

[2] *Commutative algebra and noncommutative algebraic geometry. Vol. I & Vol. II*
(co-editors M. Van den Bergh, D. Eisenbud, A. Singh, T. Stafford), Math. Sci. Res. Inst. Publ., **68**, Cambridge Univ. Press, New York, 2015.

[1] *Special issue in honor of H. B. Foxby*
(co-editors L. L. Avramov, W. Bruns), J. Pure Appl. Algebra **219** (2015).

Books

[3] *Maximal Cohen-Macaulay modules and Tate cohomology*, R.-O. Buchweitz, with appendices by L. L. Avramov, B. Briggs, S. B. Iyengar, J. C. Letz, Math. Surv. and Mono. 262, American Mathematical Society, Providence, RI, 2021.

[2] *Representations of finite groups: Local cohomology and support*
(with D. Benson, H. Krause), Oberwolfach Seminar **43**, Birkhäuser 2012.

[1] *Twenty-four hours of local cohomology*
(with G. Leuschke, A. Leykin, C. Miller, E. Miller, A. Singh, U. Walther)
Graduate Stud. Math. **87**, American Mathematical Society, Providence, RI, 2007.

Refereed publications and preprints

[110] *Locally dualizable modules abound*,
(with J. F. Carlson), preprint 2024.

[109] *Congruence modules in higher codimension and zeta lines in Galois cohomology*,
(with C. B. Khare, J. Manning, E. Urban), preprint 2023.

[108] *Lattices over finite group schemes and stratification*,
(with T. Barthel, D. Benson, H. Krause, J. Pevtsova), preprint 2023.

[107] *High Frobenius pushforwards generate the bounded derived category*,
(with M. Ballard, P. Lank, A. Mukopadhyay, J. Pollitz), preprint 2023.

[106] *Locally dualisable objects in local algebra*,
(with D. Benson, H. Krause, J. Pevtsova), proceeding of the Abel Symposium, 2022, Springer, to appear.

[105] *Homological dimensions of the Jacobson radical*,
(with R. Marcinzek, X.-W. Chen), Proc. Amer. Math. Soc., to appear.

[104] *Lim Ulrich sequences and Boij-Söderberg theory*,
(with L. Ma, M. E. Walker), Forum Sigma, to appear.

[103] *Freeness of Hecke modules at non-minimal levels*,
(with C. B. Khare, J. Manning), Math. Res. Letters, to appear.

[102] *Congruence modules and the Wiles-Lenstra-Diamond numerical criterion in higher codimensions*,
(with C. B. Khare, J. Manning), preprint 2022.

[101] *Fibrewise stratification of group representations*,
(with D. Benson, H. Krause, J. Pevtsova), Ann. Rep. Th., to appear.

[100] *A class of Gorenstein algebras and their dualities*,
(with W. Gnedin, H. Krause), Proceedings of ICRA 2020, to appear.

[99] *Cohomological supports of tensor products of modules over commutative rings*,
(with J. Pollitz, W. Sanders), Publ. Res. Inst. Math. Sci., **9** (2022), paper No. 25.

[98] *Homological dimensions over Noether algebras*,
(with L. L. Avarmov), appendix to: *Support varieties and modules of finite projective dimension for modular Lie superalgebras*, Algebra Number Theory, **15** (2021) 1157–1180.

[97] *Exceptional complete intersection maps of local rings*,
(with J. C. Letz, J. Liu, J. Pollitz), Pacific Jour. Math., **318** (2022), 275—293.

[96] *Wiles defect for modules and criteria for freeness*,
(with S. Brochard, C. B. Khare), Int. Math. Res. Notices, **2023** (2023), 6901—6923,

[95] *Multiplicities and Betti numbers in local algebra via lim Ulrich points*,
(with L. Ma, M. E. Walker), Algebra Number Theory, **16** (2022) 1213–1257.

[94] *Automorphisms of Koszul homology of local rings*,
(with H. Rüping, M. Stefan), J. Commut. Algebra, to appear.

[93] *Maximal Cohen-Macaulay complexes and their uses: a partial survey*,
(with L. Ma, K. Schwede, M. E. Walker), in: Commutative algebra, Springer, Cham, [2021], 475–500.

[92] *Rigidity properties of the cotangent complex*,
(with B. Briggs), J. Amer. Math. Soc., **36** (2023), 291–310.

[91] *Stratification and duality for unipotent finite supergroup schemes*,
(with D. Benson, H. Krause, J. Pevtsova), in: S. Balchin, D. Barnes, M. Kedziorek, and M. Szymik (eds), Equivariant Topology and Derived Algebra: A conference in honor of John Greenlees' 60th Birthday (Trondheim, 2019), London Math. Soc. Lecture Notes Ser. **474**, Cambridge Univ. Press, 2021, 241–275.

[90] *A freeness criterion without patching for modules over local rings*,
(with S. Brochard, C. B. Khare), J. Inst. Math. Jussieu, **22** (2023), 2117–2129.

[89] *The Nakayama functor and its completion for Gorenstein algebras*,
(with H. Krause), Bull. Soc. Math. France, **150** (2022), 347–391.

[88] *Rank varieties and π-points for elementary supergroup schemes*,
(with D. Benson, H. Krause, J. Pevtsova), Trans. Amer. Math. Soc., Ser. B **8** (2021), 971–998.

[87] *Locally complete intersection maps and the proxy small property*,
(with B. Briggs, J. C. Letz, J. Pollitz), Int. Math. Res. Notices, **16** (2022), 12625–12652.

[86] *Persistence of homology over commutative noetherian rings*
(with L. L. Avramov, S. Nasseh, and S. Sather-Wagstaff), J. Algebra, **610** (2022), 463–490.

[85] *Dimension of finite free complexes over commutative noetherian rings*,
(with L. W. Christensen), in: N. Baeth, T. Freitas, G. Leuschke, and V. H. J. Pérez (eds), Commutative Algebra: 150 years with Roger and Sylvia Wiegand, Contemp. Math. 773, Amer. Math. Soc. (2021), 11–17.

[84] *Local duality for the singularity category of a finite dimensional Gorenstein algebra*,
(with D. Benson, H. Krause, J. Pevtsova), Nagoya Math. J., **244** (2021), 1–24.

[83] *Detecting nilpotence and projectivity over finite unipotent supergroup schemes*, (with D. Benson, H. Krause, J. Pevtsova), Selecta Math., **27** (2021), Paper No. 25.

[82] *Rigid ideals in Gorenstein rings of dimension one*, (with C. Huneke, R. Wiegand), Acta Mathematica Vietnamica, **44** (2019), 31–49.

[81] *Openness of the regular locus and generators for module categories*, (with R. Takahashi), Acta Mathematica Vietnamica, **44** (2019), 207–212.

[80] *Regular rings and perfect(oid) algebras*, (with B. Bhatt, L. Ma), Comm. Algebra, **47** (2019), 2367–2383.

[79] *Big Cohen-Macaulay modules, morphisms of perfect complex, and intersection theorems in local algebra*, (with L. L. Avramov, A. Neeman), Documenta Math., **23** (2018), 1601–1619.

[78] *Examples of finite free complexes of small rank and homology* (with M. E. Walker), Acta Math., **221** (2018), 143–158.

[77] *Koszul property for the moment map of some classical representations* (with A. Conca, H.-C. Herbig), Collect. Math., **69** (2018), 337–357.

[76] *Local duality for representations of finite group schemes* (with D. Benson, H. Krause, J. Pevtsova), Compositio Math., **155** (2019), 424–453.

[75] *Noncommutative resolutions using syzygies* (with H. Dao, O. Iyama, R. Takahashi, M. Weymss, Y. Yoshino), Bull. LMS, **51** (2019), 43–48.

[74] *The Jacobian ideal of a commutative ring and annihilators of cohomology*, (with R. Takahashi), J. Algebra, J. Algebra **571** (2021), 280–296.

[73] *Homology over trivial extensions of commutative DG algebras* (with L. L. Avramov, S. Nasseh, S. Sather-Wagstaff), Comm. Algebra, **47** (2019), 2341–2356.

[72] *Restricting homology to hypersurfaces* (with L. L. Avramov), in: Geometric and topological aspects of group representations, 1–23, Springer Proc. Math. Stat. **242**, Springer 2018.

[71] *Rigidity of Ext and Tor with coefficients in residue fields of a commutative noetherian ring*, (with L. W. Christensen, T. Marley), Proc. Edinburgh Math. Soc., **62** (2019), 305–321.

[70] *Detecting finite flat dimension of modules via iterates of the Frobenius endomorphism* (with D. J. Dailey, T. Marley), J. Commut. Algebra **12** (2020), 71–76.

[69] *Koszul algebras defined by three relations* (with A. Boocher, H. Hassanzadeh), in: Homological and computational methods in commutative algebra, 53–68, Springer INdAM Ser., **20** Cham, 2017.

[68] *Stratification for module categories of finite group schemes* (with D. Benson, H. Krause, J. Pevtsova), J. Amer. Math. Soc., **31** (2018) 265–302.

[67] *Hopf algebra structures and tensor products for group algebras* (with J. F. Carlson), New York J. Math., **23** (2017), 351–364.

[66] *Colocalising subcategories of module over finite group schemes* (with D. Benson, H. Krause, J. Pevtsova), Ann. K-theory, **2** (2017), 387–408.

[65] *Stratification and π-cosupport: Finite groups* (with D. Benson, H. Krause, J. Pevtsova), Math. Z., **287** (2017), 947–965.

[64] *Tests for injectivity of modules over commutative rings* (with L. W. Christensen), Collect. Math., **68** (2017), 243–250.

[63] *Annihilation of cohomology and strong generation of module categories* (with R. Takahashi), International Math. Res. Notices, **2016** (2016), 499–535.

[62] *Absolutely Koszul algebras and the Backelin-Roos property*, (with A. Conca, H. Nguyen, T. Römer), Acta Mathematica Vietnamica, **40** (2015), 353–374.

[61] *Torsion in tensor powers of modules*, (with O. Celikbas, G. Piepmeyer, R. Wiegand), Nagoya Math. J., **219** (2015), 113–125.

[60] *Criteria for vanishing of Tor over complete intersections*, (with O. Celikbas, G. Piepmeyer, R. Wiegand), Pacific J. Math., **276** (2015), 93–116.

[59] *Relation between two twisted inverse image pseudofunctors in duality theory* (with J. Lipman, A. Neeman), Compositio Math., **151** (2015), 735–764.

[58] *A local-global principle for small triangulated categories* (with D. Benson, H. Krause), Math. Proc. Camb. Phil. Soc., **158** (2015), 451–476.

[57] *Subaddivity of syzygies of Koszul algebras* (with L. L. Avramov, A. Conca), Math. Annalen, **361** (2015), 511–534.

[56] *Thick subcategories of the bounded derived category of a finite group* (with J. F. Carlson), Trans. Amer. Math. Soc., **367** (2015), 2703–2717.

[55] *Annihilation of cohomology and decomposition of derived categories* (with R. Takahashi), Homology, Homotopy, Appl., **16** (2014), 231–237.

[54] *DG algebras with exterior homology* (with W. Dwyer, J. P. C. Greenlees), Bull. LMS, **43** (2013), 1235–1245.

[53] *Bass numbers over local rings via stable cohomology* (with L. L. Avramov), J. Comm. Alg., **5** (2013), 5–16.

[52] *Module categories for group algebras over commutative rings* (with D. Benson, H. Krause), J. K-Theory, **11** (2013), 297–329.

[51] *The Bousfield lattice of a triangulated category and stratification* (with H. Krause), Math. Z. **273** (2013), 1215–1241.

[50] *Detecting flatness over smooth bases* (with L. L. Avramov), J. Algebraic Geom. **22** (2013), 35–47.

[49] *Colocalizing subcategories and cosupport* (with D. Benson, H. Krause), J. Reine. Angew. Math. **673** (2012), 161–207.

[48] *Homological invariants of modules over contracting endomorphisms*
(with L. L. Avramov, M. Hochster, Y. Yao), Math. Ann. **353** (2012) 275–291.

[47] *Localising subcategories for cochains on the classifying space of a finite group*
(with D. Benson, H. Krause), Comptes Rendus Acad. Sci. **349** (2011) 953–956.

[46] *Module categories for finite group algebras*
(with D. Benson, H. Krause), Proceedings of ICRA XIV (Tokyo, 2010), Eur. Math. Soc. Series of Congress Reports, 2011, 55–84.

[45] *Reflexivity and rigidity for complexes. II. Schemes*
(with L. L. Avramov, J. Lipman), Algebra Number Theory, **5** (2011) 379–429.

[44] *Stratifying triangulated categories*
(with D. Benson, H. Krause), J. Topology, **4** (2011) 641–666.

[43] *Gross-Hopkins duality and the Gorenstein condition*
(with W. Dwyer, J. P. C. Greenlees), J. K-theory, **8** (2011) 107–133.

[42] *Stratifying modular representations of finite groups*
(with D. Benson, H. Krause), Ann. of Math. **174** (2011) 1643–1684.

[41] *Short Koszul modules*
(with L. L. Avramov, L. M. Şega), J. Comm. Alg. **2** (2010) 249–280.

[40] *Free resolutions over commutative Koszul algebras*
(with L. L. Avramov, A. Conca), Math. Res. Letters, **17** (2010) 197–210.

[39] *Support and injective resolutions of complexes over commutative rings*
(with X.-W. Chen), Homology, Homotopy, Appl., **12** (2010) 39–44.

[38] *Reflexivity and rigidity for complexes. I. Commutative rings*
(with L. L. Avramov, J. Lipman), Algebra Number Theory, **4** (2010) 47–86.

[37] *Reduction of derived Hochschild functors over commutative algebras and schemes*
(with L. L. Avramov, J. Lipman, S. Nayak), Adv. Math. **223** (2010) 735–772.

[36] *Cohomology over complete intersections via exterior algebras*
(with L. L. Avramov), Triangulated categories (Leeds, 2006), London Math. Soc. Lecture Note Ser. **375**, Cambridge Univ. Press, Cambridge, 2010, 52–75.

[35] *Dimensions of triangulated categories via Koszul objects*
(with P. Bergh, H. Krause, S. Oppermann), Math. Z. **265** (2010) 849–864.

[34] *Homology of perfect complexes*
(with L. L. Avramov, R-O. Buchweitz, C. Miller), Adv. Math. **223** (2010), 1731–1781. [Corrigendum: Adv. Math. **225** (2010), 3576–3578.]

[33] *Homological dimensions over regular rings*
(with A. Iacob), J. Algebra **322** (2009) 3451–3458.

[32] *On the existence of star products on quotient spaces of linear Hamiltonian torus actions*
(with H.-C. Herbig, M. J. Pflaum), Lett. Math. Phys. **89** (2009) 101–113.

[31] *Linearity defects of modules over commutative rings*
(with T. Römer), J. Algebra **322** (2009) 3212–3237.

[30] *Free resolutions over short local rings*
(with L. L. Avramov, L. M. Şega), J. London Math. Soc. **78** (2008) 459–476.

[29] *Gorenstein algebras and Hochschild cohomology*
(with L. L. Avramov), Michigan Math. Jour. **57** (2008), 17–35.

[28] *Noncoherent subsets of* $\operatorname{Spec} A$
Math. Ann. **340** (2008), 744–747.
Appendix to: H. Krause, *Thick subcategories of modules over commutative rings*, Math. Ann. **340** (2008), 733–744.

[27] *Local cohomology and support for triangulated categories*
(with D. Benson, H. Krause), Ann. Sci. École Norm. Sup. (4) **41** (2008), 575–621.

[26] *Constructing modules with prescribed cohomological support*
(with L. L. Avramov), Ill. Jour. Math. **51** (2007), 1–20.

[25] *André-Quillen homology of commutative algebras*
Interactions between homotopy theory and algebra (Chicago 2004), Contemp. Math. **436**, American Math. Soc. Providence, RI, 2007, 203–234.

[24] *Class and rank of differential modules*
(with L. L. Avramov, R-O. Buchweitz), Invent. Math. **169** (2007), 1–35.

[23] *Gorenstein dimension of modules over homomorphisms*
(with L. W. Christensen), J. Pure Appl. Algebra **208** (2007), 177–188.

[22] *Hilbert-Samuel functions of modules over Cohen-Macaulay rings*
(with T. Puthenpurakal), Proc. Amer. Math. Soc. **135** (2007), 637–648.

[21] *A criterion for regularity of local rings*
(with T. Bridgeland), Comptes Rendus Acad. Sci. **342** (2006), 723–726.

[20] *Acyclicity versus total acyclicity for complexes over commutative rings*
(with H. Krause), Documenta Math. **11** (2006), 207–240.

[19] *Finiteness in derived categories of local rings*
(with W. Dwyer, J. P. C. Greenlees), Comment. Math. Helv. **81** (2006), 383–432.

[18] *Homology over local homomorphisms*
(with L. L. Avramov, C. Miller), Amer. J. Math. **128** (2006), 23–90.

[17] *Duality in algebra and topology*
(with W. Dwyer, J. P. C. Greenlees), Adv. Math. **200** (2006), 357–402.

[16] *Gaps in Hochschild cohomology imply smoothness for commutative algebras*
(with L. L. Avramov), Math. Res. Letters **12** (2005), 789–804.

[15] *Koszul modules*
(with J. Herzog), J. Pure Appl. Algebra **201** (2005), 154–188.

[14] *Modules and cohomology over group algebras. One commutative algebraist's perspective.* in: Trends in commutative algebra (Berkeley 2002), Mathematical Sciences Research Inst. Publ. **51**, Cambridge Univ. Press, Cambridge, (2004) 51–86.

[13] *G-dimension over local homomorphisms. Applications to the Frobenius endomorphism.* (with S. Sather-Wagstaff), Ill. Jour. Math. **48** (2004) 241–272.

[12] *Dualizing DG modules and Gorenstein DG algebras* (with A. Frankild, P. Jørgensen), J. London Math. Soc. **68** (2003) 288–306.

[11] *Depth and amplitude of unbounded complexes* (with H.-B. Foxby), in: Commutative algebra and its interaction with algebraic geometry (Grenoble-Lyon 2001), Contemp. Math. **331**, American Math. Soc. Providence, RI, 2003; pp. 119–137.

[10] *André-Quillen homology of algebra retracts* (with L. L. Avramov), Ann. Sci. École Norm. Sup. (4) **36** (2003) 431–462.

[9] *Homological criteria for regular homomorphisms and for locally complete intersection homomorphisms* (with L. L. Avramov), in: Algebra, Arithmetic and Geometry (Mumbai, 2000), T.I.F.R. Studies in Math. 16 vol. I, Narosa, New Delhi, 2002; pp. 97–122.

[8] *Acyclicity of Tate constructions* J. Pure Appl. Algebra **163** (2001) 289–300.

[7] *On a depth formula for modules over local rings* (with S. Choi), Comm. Algebra **29** (2001) 3135–3143.

[6] *Free summands of conormal modules and central elements in homotopy Lie algebras of local rings* Proc. Amer. Math. Soc. **129** (2001) 1563–1572.

[5] *Finite generation of Hochschild homology algebras* (with L. L. Avramov), Invent. Math. **140** (2000) 143–170.

[4] *Maximal minimal resolutions* (with K. Pardue), J. Reine. Angew. Math. **512** (1999) 27–48.

[3] *Depth for complexes, and intersection theorems* Math. Z. **230** (1999) 545–567.

[2] *Free resolutions and change of rings* J. Algebra **190** (1997) 195–213.

[1] *Shifts in resolutions of multigraded modules* Math. Proc. Camb. Phil. Soc. **121** (1997) 437–441.

Plenary lecture

Guided by commutative algebra..
Auslander Distinguished Lectures, Woods Hole Oceanographic Institution, April 2023.

Finite free complexes over polynomial rings
Fall Western Sectional Meeting, Amer. Math. Soc., San Francisco, CA, October 2018.

Commutative algebra and representations of finite groups
INdAM Day 2012, Genoa, Italy, June 2012.

Invited lecture series since 2010

Local dualisable objects in local algebra and representation theory (3 lectures)
Interactions between algebra, equivariance, and homotopy theory, Regensburg, Germany, June 2024,

Duality and stratification for commutative rings (4 lectures)
Dualities in Algebra and Topology, ICTS TIFR, Bengaluru, May 2023

Around duality in local algebra (4 lectures)
Dualities in Algebra and Topology, on-line, ICTS TIFR, Bengaluru, February 2021

Local duality for Gorenstein algebras (3 lectures)
International Congress in the Representation theory of Algebras, on-line, November 2020.

Modular representation theory of elementary abelian groups and commutative algebra (2 lectures)
IIT-B, Mumbia, India, Virtual Commutative Algebra Seminar, June 2020.

Homological aspects of the Frobenius endomorphism (6 lectures)
IIT-B, Mumbia, India, December 2018.

Masterclass: Stratification and duality in modular representation theory (5 lectures)
Copenhagen, Denmark, March 2017.

Invariant theory of finite groups (5 lectures)
Chennai Mathematics Institute, Chennai, India, December 2015.

Multiplicative structures in the study of free resolutions (5 lectures)
Local cohomology and syzygies of affine algebra, PRAGMATIC, Catania, Italy, June 2014.

Commutative algebra for modular representations of finite groups (4 lectures)
Cohomology and support in representation theory and related topics, Seattle, July 2012.

Torsion in tensor powers of modules over commutative rings (4 lectures)
7th joint Japan-Vietnam seminar on Commutative Algebra, Quy Nhon, Vietnam, Dec. 2011.

Classifying thick subcategories of bounded derived categories (3 lectures)
Workshop "Representation theory: cohomology and support", Morningside Center of Mathematics, Chinese Academy of Science, Beijing, China, September 2011.

Invited talks at conferences/workshops (more than 30 minutes) since 2019

Congruence modules in higher codimensions
Global Langlands, Shimura varieties, and shtukas, Bonn, Germany, August 2023.

Local dualisable objects in commutative algebra and modular representation theory
Spectra, triangles, and higher structures, Bonn, Germany, December 2022.

Representations and fibres
Triangulated categories in representation theory and beyond, The Abel symposium 2022, Alesund, Norway, June 2022.

Rigidity properties of the cotangent complex
KUMUNU 2021, Lincoln, Nebraska, May 2022.

Rank varieties for elementary supergroup schemes
New directions in group theory and triangulated categories, Manchester, U.K., January 2021.

The complete intersection property through the lens of derived categories
Southwest Local Algebra Meeting, New Orleans, March 2020.

Characterising complete intersection rings via (proxy-)smallness
Equivariant topology and derived algebra, Conference in honor of John Greenlees' 60th birthday, Trondheim, Norway, August 2019.

Reading "Maximal Cohen-Macaulay modules and Tate-cohomology over Gorenstein rings"
Ragnar's ramifications in algebra and geometry emerging, Toronto, July 2019.

Modules with no higher self-Tors
Commutative algebra and its interactions with algebraic geometry, Notre Dame, June 2019.

Rank varieties for modular representations of finite groups
Multivariable spectral theory and representation theory, BIRS, Canada, April 2019.

Lectures at colloquia and seminars since 2019

University of Mainz, Germany, November 2022. (Seminar)

University of Nebraska, Lincoln, May 2022. (Seminar)

University of Arkansas, Fayeteville, November 2020. (Colloquium)

Bielefeld University, Bielefeld, June 2020.

University of California, Berkeley, March 2020.

Tulane University, New Orleans, March 2020. (Colloquium)

Service - University of Utah

Co-Director of Graduate Studies, June 2023 -

Awards Committee, August 2022 - May 2023

5-Year Tenured Faculty Review Committee, Spring 2023

Graduate Recruiting Committee, August 2022 - May 2023.

Hiring Committee, August 2022 - May 2023.

Hiring Committee, August 2021 - May 2022.

University Senate, August 2019 - May 2020.

Hiring Committee, August 2019 - May 2020.

Executive Committee, August 2017 - May 2018.

Ad. Hoc. Committee (for Bhatt), March 2018

RPT Committee (Osting), 2018

Grad. Committee, August 2016 - May 2017.

Grad. Rec. Committee, August 2015 - May 2016.

Awards Committee, August 2015 - May 2020. Committee Chair 2018 - 2020

College of Science Council, August 2015 - August 2017.

Service - external

Co-organizer, Fellowship of the Ring, Worldwide Commutative Algebra Seminar, hosted by MSRI, 2020-23.

AMS-Simons Travel Grants Committee, 1st February 2011 to 31st January 2012

Reviewer on an National Science Foundation panel (2004,2007,2009,2010,2015, 2018, 2020, 2023)

Reviewer for the National Security Agency

Reviewer for the Research Council of Norway (twice)

Conferences and workshops organized since 2019

Introductory workshop: Commutative Algebra
(with C. Miller, C. Polini, A. Singh), as part of the "Commutative Algebra" program at SLMath, Berkeley, California, January - May 2024.

Triangulated categories and representation theory
(with D. Benson, W. Crawley-Boevy, E. Faber, L. Hille, J. Letz, M. Stephan), Conference on the occasion of Henning Krause's 60th birthday, September 2022, Bielefeld, Germany.

Rank conjectures in Algebraic Topology and Commutative Algebra
(with N. Castellana, C. Miller, and M. Stephan), 11–16 Sept. 2022, BIRS, Banff, Canada.

75+80=155 years of commutative algebra
(with A. Conca, M. Juhnke-Kubitzke, T. Römer), Conference on the occasion of Winfried Bruns' 75th and Jürgen Herzog's 80th birthday, June 2022, Osnabrück, Germany.

Recent developments in Commutative Algebra
(with A. Conca and A. Singh), 1–5 Julyl 2019, Trento, Italy.

Singularities and Homological Aspects of Commutative Algebra
(with A. Conca and S. D. Cutkosky), Mathematisches Forschungsinstitut, 10–16 February 2019, Oberwolfach, Germany.