

**Tata Institute of Fundamental Research
School of Mathematics**

Past Lecture Courses in the School of Mathematics (2015-16 onwards¹)

Year	Semester	Course(s)	Instructor(s)
2015	Fall	First year courses Algebra I Analysis I Topology I Second year/Advanced courses Number Theory Commutative Algebra Representation theory of Lie groups Algebraic Geometry Discrete Mathematics	Nitin Nitsure Anish Ghosh S.K. Roushon E. Ghate Ravi Rao D. Prasad Yogish Holla Amitava Bhattacharya
2016	Spring	First year courses Algebra II Analysis II Topology II Second year/Advanced courses Expander Graphs	Nitin Nitsure J. Sengupta S.K. Roushon Anish Ghosh, Prahlad Harsha
2016	Fall	First year courses Algebra I Analysis I Topology I Second year/Advanced courses Introduction to Algebraic Stacks Introduction to Verdier duality and perverse sheaves Manifold Topology	R. Ganapathy T.N. Venkataramana C.S. Rajan Nitin Nitsure V. Srinivas S.K. Roushon
2017	Spring	First year courses Algebra II Analysis II Topology II	Sandeep Varma Yogish Holla Mahan Mj
2017	Fall	First year courses Algebra I Analysis I Topology I Second year/Advanced courses Introduction to Algebraic Stacks	E. Ghate S. Bhattacharya S. Subramanian Nitin Nitsure

¹ The list may not be exhaustive.

Year	Semester	Course(s)	Instructor(s)
2018	Spring	First year course Algebra II Analysis II Topology II Second year/Advanced courses Introduction to Algebraic Stacks Geometry for Physics	Raja Sridharan A. Sankaranarayanan Arvind Nair Nitin Nitsure Nitin Nitsure
2018	Fall	First year courses Algebra I Analysis I Topology I	Tanmay Deshpande S. Bhattacharya V. Srinivas
2019	Spring	First year course Algebra II Analysis II Topology II Second year/Advanced courses Deformation theory Matlis Duality Perverse sheaves Ergodic geometry Introduction to Rigid Analysis	Amalendu Krishna T.N. Venkataramana V. Srinivas Nitin Nitsure Dilip Patil Swarnava Mukhopadhyay Anish Ghosh E. Ghate
2019	Fall	First year courses Algebra I Analysis I Topology I Second year/Advanced courses Ergodic Geometry Algebraic Geometry	A.J. Parameswaran Sandeep Varma S.K. Roushon Anish Ghosh Yogish Holla
2020	Spring	First year course Algebra II Analysis II Topology II Second year/Advanced courses Class field theory Algebraic Geometry	C.S. Rajan Mahan Mj S.K. Roushon Amalendu Krishna Yogish Holla
2020	Fall	First year courses Algebra I Analysis I Topology I	Tanmay Deshpande Amitava Bhattacharya Anand Sawant

Year	Semester	Course(s)	Instructor(s)
		Second year/Advanced courses Representation theory of Lie algebras Singularities of the minimal model program Dynamical systems Hyperbolic geometry	Swarnava Mukhopadhyay Omprokash Das Anish Ghosh, S. Mukherjee Mahan Mj
2021	Spring	First year course Algebra II Analysis II Topology II Second year/Advanced courses Advanced Topics course in Representation theory Fundamental theorems of MMP	Vijaylaxmi Trivedi Siddhartha Bhattacharya Anand Sawant Swarnava Mukhopadhyay Omprokash Das
2021	Fall	First year course Algebra I Analysis I Topology I Second year/Advanced courses Spectral Geometry and Semi-classical analysis Algebraic Geometry	Arvind Nair T.N. Venkataramana A. J. Parameswaran Sugata Mondal and Mayukh Mukherjee (IIT-B) Yogish Holla
2022	Spring	First year course Algebra II Analysis II Topology II Second year/Advanced courses Algebraic Geometry Discrete subgroups of Lie groups	E. Ghatge S. Mukherjee N. Fakhruddin Yogish Holla Mahan Mj & Anish Ghosh
2022	Fall	First year course Algebra I Analysis I Topology I	Swarnava Mukhopadhyay Subhajit Goswami Yogish Holla
2023	Spring	First year course Algebra II Analysis II Topology II Second year/Advanced courses Introduction to Linear Algebraic Groups	Vijaylaxmi Trivedi Anish Ghosh S.K. Roushon Sandeep Varma
2023	Fall	First year course Algebra I Analysis I	Srimathy Srinivasan Siddhartha Bhattacharya

Year	Semester	Course(s)	Instructor(s)
		Topology I Second year/Advanced courses Algebraic Geometry Dynamics of group actions on homogeneous spaces	Radhika Gupta Anand Sawant Anish Ghosh
2024	Spring	First year course Algebra II Analysis II Topology II	Omprokash Das Swarnava Mukhopadhyay Arvind Nair
2024	Fall	First year course Algebra I Analysis I Topology I Second year/Advanced courses Algebraic Geometry Algebraic Groups	Sandeep Varma Subhajt Goswami Yogish Holla Anand Sawant Tanmay Deshpande
2025	Spring	First year course Algebra II Analysis II Topology II	Omprokash Das Siddhartha Bhattacharya Mahan Mj