Sayanta Mandal

CONTACT
INFORMATION

Department of Mathematics, Statistics and Computer Science (M/C 249)
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EDUCATION

University of Illinois at Chicago, Department of Mathematics
Ph.D., May 2020, Advisor - Prof. Izzet Coskun.

Chennai Mathematical Institute, Department of Mathematics
B.Sc., 2013, M.Sc. 2015, M.Sc. Advisor - Prof. Jaya N. Iyer.

RESEARCH

I am an algebraic geometer specializing in the study of the moduli space of sheaves over projective spaces and Grassmannians.

PAPERS AND
PREPRINTS

- *Non-globally generated bundles on curves*, with John Kopper, arXiv:2003.10890.
- *On the stabilization of the Betti numbers for the moduli space of sheaves on* $\mathbb{P}^2$, arXiv:1908.09977.
- *On the loci of morphisms from* $\mathbb{P}^1$ *to* $G(r,n)$ *with fixed splitting type of the restricted universal sub-bundle or quotient bundle*, arXiv:1908.09978.

TEACHING
EXPERIENCE

- Grader for Math 310 (Applied Linear Algebra), Spring 2019.
- Teaching Assistant for Math 181 (Calculus II), Spring 2016 - Spring 2019 (16 sections).
- Teaching Assistant for Math 125 (Linear Algebra for Business), Fall 2015.

TALKS

- Speaker at the Graduate Algebraic Geometry Seminar, University of Illinois at Chicago, Spring 2016 - Fall 2018.
Topics:
    - Normal bundles of rational curves in projective space, Fall 2018.
    - Hypersurfaces with too many rational curves, Spring 2018.
    - On stability of the syzygy bundle, Fall 2017.
    - Cokernel bundles and Fibonacci bundles, Spring 2017.
    - Construction of the Hilbert and Quot scheme, Fall 2016.
    - The Grothendieck-Riemann-Roch theorem, Spring 2016.
- Rational curves and Grassmannian, Algebraic Geometry Seminar, University of Notre Dame, Fall 2019.
- Betti numbers of the moduli space of sheaves on $\mathbb{P}^2$, FRG Workshop on Stability, Moduli Spaces and Applications, University of Illinois at Chicago, Fall 2019.
- Betti numbers of the moduli space of sheaves on the projective plane, Enumerative Geometry Seminar, University of California San Diego, Spring 2020.

ORGANIZATION

- Member of organizing committee for the Midwest Algebraic Geometry Graduate Conference, Summer 2018 and Spring 2019.