

# Anirban Dawn

## Education

2021 **Doctor of Philosophy**

Central Michigan University, Mt Pleasant, Michigan, USA.  
Research Areas: Several Complex Variables, Functional Analysis.  
Advisor: Dr. Debraj Chakrabarti.  
Title of the project: Laurent series as Fourier Series.

2012–2014 **Master of Science in Mathematics**

Indian Institute of Technology Guwahati, India.

2009–2012 **Bachelor of Science in Mathematics**

Ramakrishna Mission Vidyamandira, University of Calcutta, India.

## Professional and Teaching Experience

- **Assistant Teaching Professor (August 2022 - Present), Department of Mathematics, The University of Tampa, FL**
- **Visiting Assistant Professor (August 2021 - May 2022), Department of Mathematics, The University of Tampa, FL**
- **Graduate Teaching Assistant (August 2015 - May 2021), Department of Mathematics, Central Michigan University, MI**
- **Math Tutor at Central Michigan University:** As a Math tutor, I worked (for 6 years) at the Mathematics Assistance Center (MAC). The MAC is a free math help center for undergraduate students.

Course	Year(s)
Calculus for Business	2022, 2023
Finite Math for Liberal Arts	2021, 2022, 2023
Precalculus	2022
Calculus-1	2020, 2023, 2024
Linear Alg and Diff Eq.	2020
Calculus-2	2018
College Algebra	2017, 2018, 2021, 2022, 2023, 2024
Intermediate Algebra	2015, 2016

## Student Mentoring and Departmental/ University Service

- Mentored Samantha Morrison for her senior seminar project in Spring 2023 at UT (Project title: Cantor Set, Fractals, and the Devil's Staircase).
- Coordinator of MAT 155 Finite Mathematics for Liberal Arts course.
- Coordinator of the Putnam Mathematical Competition at the University of Tampa.
- Tutor at Math Clinic, University of Tampa.

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## Publications

- Chakrabarti, D., **Dawn, A.** *Power series as Fourier series*. Rocky Mountain J. Math. 52 (5) 1539 - 1574, October 2022. <https://doi.org/10.1216/rmj.2022.52.1539>

**Abstract:** An abstract theory of Fourier series in locally convex topological vector spaces is developed. An analog of Fejér's theorem is proved for these series. The theory is applied to distributional solutions of Cauchy-Riemann equations to recover basic results of complex analysis. Some classical results of function theory are also shown to be consequences of the series expansion.

- **Dawn, A.** *Laurent series of holomorphic functions smooth up to the boundary*. Complex Anal Synerg 7, 13 (2021). <https://doi.org/10.1007/s40627-021-00080-1>.

**Abstract:** It is shown that the Laurent series of a holomorphic function smooth up to the boundary on a Reinhardt domain in  $\mathbb{C}^n$  converges unconditionally to the function in the Fréchet topology of the space of functions smooth up to the boundary.

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## Awards and Honors

1. Outstanding Tutoring Award - Graduate Student - Honorable Mention (for tutoring at the Mathematics Assistance Center), May 2020.
2. Graduate Presentation Grant (to present my work at University of Toledo), College of Science and Engineering, Central Michigan University, February 2020.
3. Graduate Presentation Grant (to present my work at Midwest SCV conference), Office of Research and Graduate Studies, Central Michigan University, October 2019.
4. Graduate Research Assistantship, Central Michigan University, Fall 2019.
5. Graduate Research Assistantship, Central Michigan University, Spring 2019.
6. AMS Sectional Meeting Travel Grant, American Mathematical Society, 2017.
7. Grand Integrator-Winner at the Annual Integration Bee Competition, Central Michigan University, 2017.
7. Qualified Graduate Aptitude Test in Engineering (GATE) 2014 with All India Rank 54.
8. Qualified IIT Joint Admission Test for Masters (JAM) 2012 with All India Rank 178.
9. Awarded INSPIRE SCHOLARSHIP (For Master of Science) by Department of Science and Technology, Government of India.
10. Awarded INSPIRE SCHOLARSHIP (For Bachelor of Science) by Department of Science and Technology, Government of India.

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## Presentations and Talks Given

- *Laurent Series in Spaces of Holomorphic Functions*, AMNS International Conference, Pokhara, Nepal, May 27, 2023.
- *Laurent Series in Spaces of Holomorphic Functions*, Operator Theory Talks for Early Researchers (OTTER), November 15, 2022.
- *Laurent Series in Spaces of Holomorphic Functions and cohomologies*, Joint Mathematics Meetings (JMM) 2021, AMS special session on partial differential equations and spaces of holomorphic functions, January 8, 2021.
- *Laurent Series in Spaces of Holomorphic Functions*, Complex Analysis and Operator Theory Seminar, University of Toldedo, Ohio, February 27, 2020.
- *Laurent Series in Spaces of Holomorphic Functions*, Graduate Student Seminar, Central Michigan Univeristy, February 18, 2020.
- *Laurent Series in Spaces of Holomorphic Functions* (poster presentation), Midwest SCV Conference, University of Michigan-Dearborn, October 12, 2019.

- *Dirichlet Problem on the Unit Disc*, AMS Graduate Student Chapter, Central Michigan University, September 28, 2018.
- *An Abstract Fejér Theorem and Some Applications*, Analysis and Geometry Seminar, Central Michigan University, September 14, 2018.
- *A Theorem of Grothendieck*, Analysis and Geometry Seminar, Central Michigan University, February 16, 2018.
- *Partitions of Unity*, Analysis and Geometry Seminar, Central Michigan University, September 8, 2017.

## Conferences and Workshops Attended

- MAA MathFest, Tampa, August 2-5, 2023.
- AMNS International Conference, Pokhara, Nepal, May 25-28, 2023.
- MRC New Problems in Several Complex Variables (AMS), June 13-18, 2021.
- Joint Mathematics Meetings (JMM) 2021, January 6-9, 2021.
- Midwest Several Complex Variables Conference, University of Michigan-Dearborn, October 11-13, 2019.
- Summer School on Cauchy-Riemann Equations on Higher Dimensions, International Centre for Theoretical Sciences, TIFR Bangalore, India, July 15- August 02, 2019.
- Summer Graduate School, Mathematical Sciences Research Institute (MSRI), Berkeley, California, June 11-22, 2018.
- Midwest Several Complex Variables Conference, Syracuse University, New York, May 18-20, 2018.
- AMS Spring Sectional Meeting, Ohio State University, Columbus, Ohio, March 16-18, 2018.
- Complex Geometry and Several Complex Variables Conference, University of Notre Dame, Indiana, March 9-11, 2018.
- AMS Fall Sectional Meeting, University at Buffalo, SUNY, New York, September 16-17, 2017.
- Midwest Several Complex Variables Conference, Brown University, Providence, Rhode Island, June 9-11, 2017.
- Midwestern Workshop on Asymptotic Analysis, Indiana University–Purdue University Fort Wayne, October 7–9th, 2016.
- Midwest Several Complex Variables Conference, University of Toledo, Ohio, May 13-15, 2016.

## Skills

- Computer Programming: Python, Matlab, C, C++, Latex
- Others: MS Office (Word, Excel, Powerpoint)

## Professional Membership

- I am a member of the Mathematical Association of America (MAA).
- I held the position of treasurer (2018-2021) of the American Mathematical Society Graduate Student Chapter, Central Michigan University.
- I was a member of the American Mathematical Society, Providence, Rhode Island.

## Additional Information

- Google Scholar Link: <https://scholar.google.com/citations?hl=en&user=fYjWCvMAAAAJ>
- Orcid Account Link: <https://orcid.org/0000-0001-6560-5332>
- Researchgate Account Link: <https://www.researchgate.net/profile/Anirban-Dawn>