

Dear Readers,

Welcome to the very first edition of **Dialectica**- the LinkedIn newsletter of SJCC's B.Sc. Programme. Just like the programme, this newsletter seeks to understand policies, mathematical models and data in depth through niche and nuance.

Dialectica arrives at a time when the world of economics, mathematics and data analytics is anything but quiet. This year's Nobel Prize in Economics, awarded to Joel Mokyr, Philippe Aghion, and Peter Howitt, recognised advancements in how we understand innovation-driven economic growth and sustained growth through destruction & technological processes. Meanwhile, the AWS outage during Diwali was an intriguing case in labour economics and supply chain shocks; it seems to us that the global uptime depends quite heavily on Indian downtime.

But jokes apart, Dialectica focuses on gaining a deeper understanding of these fields. Trying to explain the most complex concepts in simple terms has proven time and again to be the ultimate deep-dive for learning and research. If you've ever wondered whether regression analysis can explain coffee consumption during exam season, rest assured that the R-squared is probably suspiciously high, while the outliers are sipping herbal tea and pretending it's effective.

Let's also take a moment to celebrate the rise of AI-powered diagnostics, with startups like Qure.ai bridging healthcare gaps using AI & ML. It's a good reminder to all of us that data isn't just about creating dashboards and informatics, but about making an impact. In mathematics, a major breakthrough in the Keakeya conjecture this year has assisted in bettering our understanding of how sets behave when they contain a line segment in every direction, with implications for geometry, harmonic analysis, and even theoretical computer science. New work on topology and geometry is changing how we interpret physical systems an equation at a time. Mathematics, more often than not, looks to model the chaos of equations written on paper. *(Now that you think about it, that's probably the driving factor of the suspiciously high R-squared for our students.)*

We seek to curate Dialectica with a mix of analysis, commentary, perspectives and a few surprises. Whether you're here for the policy breakdowns, conceptual deep dives, or just to see if we finally made a joke on your favourite topic, we hope you find something that sparks curiosity and inspiration.

As always, we welcome your feedback, questions, and contrarian takes. Outliers may skew the mean, but they often end up carrying the most interesting stories.

Signing off ,

Divya Saranyan & Shambhavi

Editors-in-Chief, B.Sc. Editorial Team

1. B.Sc. Programme Link- [ST JOSEPH COLLEGE OF COMMERCE](#)
2. Nobel Prize- [Prize in Economic Sciences 2025 - Press release - NobelPrize.org](#)
3. AWS- [Amazon reveals cause of AWS outage that took everything from banks to smart beds of line | Amazon | The Guardian](#)
4. Qure.ai- [ET Startup Awards 2025 | Top Innovator: Qure.ai bridges diagnostic gap - The Economic Times](#)
5. Keakeya Conjecture- <https://www.quantamagazine.org/once-in-a-century-proof-settles-maths-keakeya-conjecture-20250314/>
6. Topology- [Shedding new light on topological lattices - IBM Research](#)
7. Geometry- [Mathematicians Make Surprising Breakthrough in 3D Geometry with 'Noperthedron' | Scientific American](#)