

ARNAV METRANI

PHYSICS UNDERGRADUATE

ABOUT ME

I'm a 3rd year Physics Undergraduate at IISER-Mohali. I'm currently exploring Relativity and QM, and would like to explore other fields as well.

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🌐 www.arnavmetrani.github.io

EDUCATION	PROJECTS, PUBLICATIONS AND TALKS
<p>Campion School (2019)</p> <ul style="list-style-type: none">10th Grade, ICSE <p>PACE Junior Science College (2019-2021)</p> <ul style="list-style-type: none">11th and 12th, HSC Board <p>Indian Institute of Science Education and Research, Mohali (2021-)</p> <ul style="list-style-type: none">Integrated M.Sc. in Physics (ongoing)	<p>Summer Project: Introduction to Special Relativity and Analysis</p> <p>Dr. Jasjeet Singh Bagla, IISER-Mohali (Online)</p> <p>Project comprised of Lorentz transforms, Minkowski geometry analysis, paradoxes, four-vector formulation, analysis of accelerating frames including Rindler frames, electrodynamic effects and optical effects.</p> <p>Summer Project: Introduction to Quantum Algorithms and Quantum Error Correction</p> <p>Dr. Kuntal Roy, IISER-Bhopal (Online)</p> <p>Project comprised of basic theory of Quantum Computing and studying various aspects such as various Quantum Algorithms, Quantum Error Correction Algorithms, and applications of Quantum Fourier Transform.</p> <p>Project included writing and executing the above quantum circuits on IBM-Q (through Qiskit).</p> <p>Talk: (Extended) Introduction to Quantum Algorithms</p> <p>Presented a talk on behalf of the Physics and Computer club in the campus. Talk covered the current landscape of QC and current shortcomings, as well as explanation of a few algorithms.</p>
COURSES UNDERTAKEN	
	<p>Physics: Introduction to Mechanics, Introduction to Electromagnetism, Waves and Optics, Thermodynamics</p> <p>Mathematics: Introduction to Group Theory, Real Analysis in One variable, Introduction to Differential Geometry, Introduction to Differential Equations, Probability Theory, Theory of Computation</p>

EXTRACIRRICULARS

- Co-convener of IISER Mohali's Physics Club
- Member of citizen research organization Zooniverse
- Participated in NASA GLOBE CLOUD CHALLENGE 2022 with CLOUD GAZE
- Blog on STEM related topics