



The Quantum Wonder

Introduction to Quantum Physics

Objective |

- Expose the deeper concepts of Quantum Physics, to talented students who are keen on pursuing a career in science or engineering.
- Introduce the various technological applications and philosophical challenges posed by the theory.
- Give them a platform to discover their potential and push their boundaries of thinking.
- Understand the importance of Quantum Physics in variety of modern-day field.
- Discover possible career pathways through science.

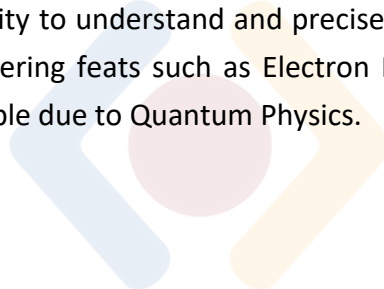
Outline |

Can one object be in two places at the same time? Is it possible to walk through walls?

Can a solid object be tuned to behave like a wave?

In the Quantum World, nothing is impossible!

Quantum objects, which form the building blocks of our world, have mind-boggling and counter-intuitive properties. They have been thoroughly scrutinized in various science experiments for more than a century; and every time Quantum Physics has been proven right! Today this branch of science plays an important role in various aspects of our lives. The ability to understand and precisely control Quantum objects has allowed us to revolutionize technology. Engineering feats such as Electron Microscopes, Quantum dots, Solar cells and Memory Storage Devices are possible due to Quantum Physics.





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Because Quantum science is playing a crucial role in shaping humanity's future, it is important for students to be exposed to it at a young age. This exposure will allow them to foresee opportunities in science and technology, both for education and for future careers.

The aim of this workshop **Quantum Wonder** is exactly this. During the workshop students will get to appreciate the logic underlying Quantum Physics and study its applications in modern technologies. Students will also be exposed to the philosophical challenges raised by the theory. We will discuss questions such as 'Is there an absolute reality?' and 'Can the observed exist without an observer?'

This holistic combination of **theory-application-philosophy** makes this workshop a unique learning experience, which are typically not offered in standard science curriculums due to time constraints. Breaking out of the traditional teaching practice, the students will be taken through a hands-on and discussion-based pedagogy. They will have the opportunity to build their problem-solving, analytical and communications skills.

Workshop Highlights |

- Science underlying the Quantum World
- Technological and Engineering revolution possible due to Quantum Physics
- Philosophical challenges posed by Quantum Mechanics
- Problem-solving skills
- Group discussions and activities to improve communication skills
- Interactive session with parents



Flat No. 1006, F-wing, Rustomjee Azziano, Behind Vrundavan Society, Majhivada, Near Rustomjee School, Manpada,
Thane - 400607, Maharashtra, India.

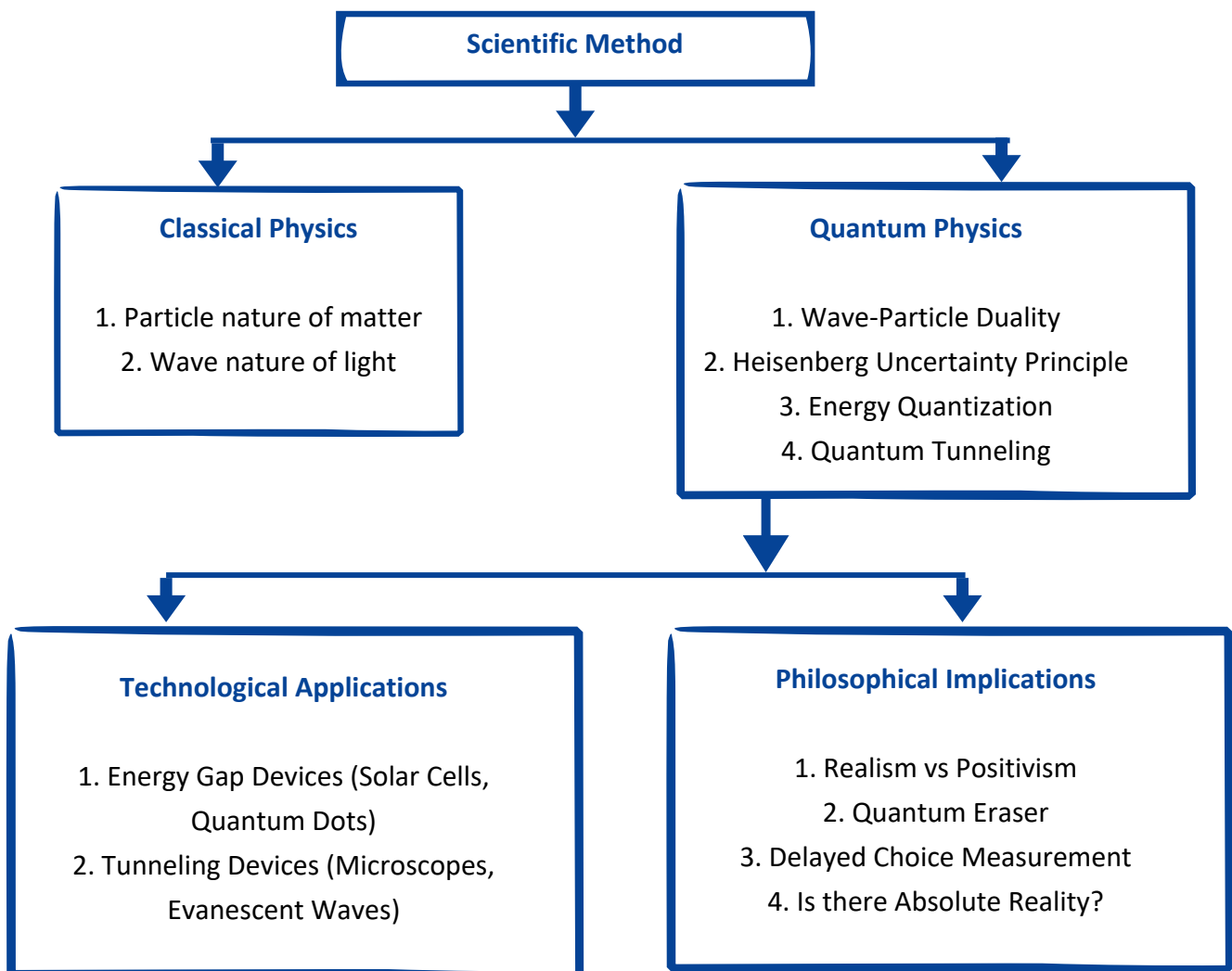
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Key Topics |





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Target Audience |

This workshop is meant for students who are passionate about Physics and are keen to pursue a career in Science or Engineering.

The content of the course will explore topics beyond the standard curriculum; hence participating students from Grade 10, 11 or 12 are expected to be highly motivated and abled students.

Participants must have at least either one of the following:

- Exemplary academic performance in Physics/Mathematics
- Keen interest in physics, demonstrated through extra-curricular activities, aptitude tests etc.

Enrollment |

Visit www.raisingamathematician.com and fill out the registration form on the web app. Registrations will close at 100. The suggested donation would be INR 5,000/- per participant. All donations will be exempt from Tax under the section of 80G in the IT Act. A certificate and receipt for income tax exemption will be given to all donors. Students who require financial assistance and scholarship for the workshop, can write to us requesting a partial or full scholarship as the need may be.



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Certificate |

A certificate of participation will be awarded to students who successfully complete the workshop. Attendance in all the sessions is mandatory for receiving the certificate.

Dates & Timings* |

Dec 7th to 14th, 2023. Timings on all dates except the sessions on weekends will be 7:00 to 9:30 pm IST. Session on Dec 9th will be from 3:00 to 5:00 pm IST. Sunday's timings will be announced later. No session will be held on Dec 8th.

* The organisers hold the right to change the dates and timings in the account of any unforeseen circumstances.



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