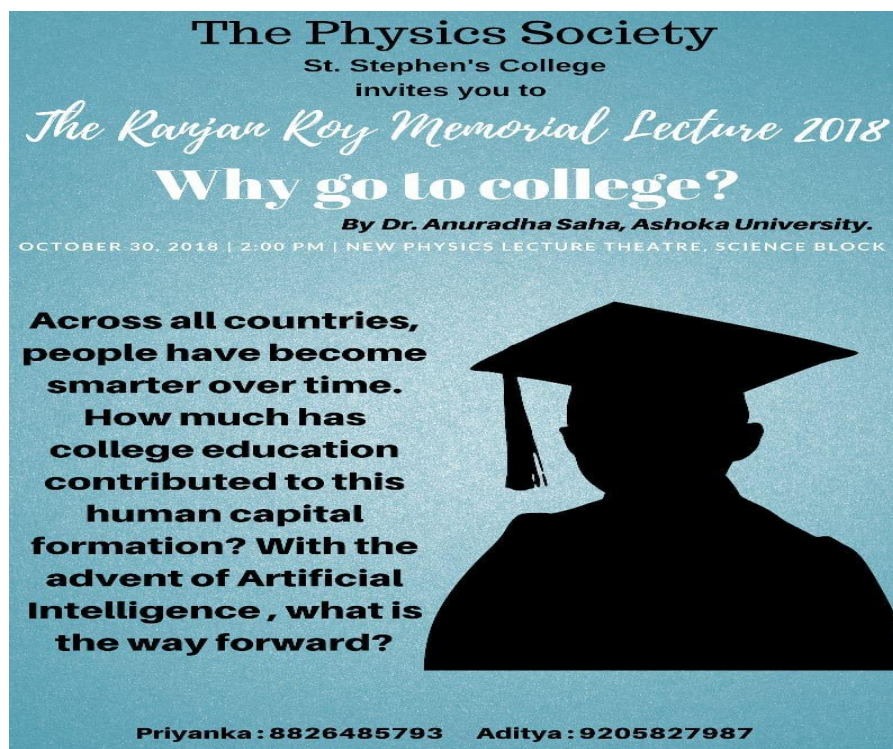




Society Activity Report 2018-19

The Physics Society

- **The Annual Ranjan Roy Memorial Lecture** on *"Why go to College?"* by Dr. Anuradha Sadha of Ashoka University on **30th October 2018**.
 - Number of attendees : 70
 - Venue : New Physics Lecture Theatre, St. Stephen's College



Poster for The Annual Ranjan Roy Memorial Lecture, 2018



- **The Annual Meera Memorial Paper Reading Competition on 17th and 18th of January 2019.**
 - Judges :
 - i. Dr. Sanil Unnikrishnan, Dept. of Physics, St. Stephen's College
 - ii. Dr. Sampooranand Jha, Dept. of Physics, St. Stephen's College
 - iii. Satvik Mishra, Third Year Undergraduate Student, St. Stephen's College
 - Total number of participants : 12
 - Venue : New Physics Lecture Theatre, St. Stephen's College



08/07/2022, 23:56

Gmail - Meera Memorial Paper Reading Competition



Physics Stephen's <physics.stephens@gmail.com>

Meera Memorial Paper Reading Competition

2 messages

Physics Society <physics.stephens@gmail.com> Sat, Dec 22, 2018 at 3:12 PM

To: Aditya Singh Shekhawat <adidshshekhwat@gmail.com>, Aiswarya Aju <aiswarya.aju@gmail.com>, Ananya George <ananyageorge1997@gmail.com>, Anuj Kumar Singh <kanuj195@gmail.com>, Arunima <arukundu3199@gmail.com>, Chelsea Maria John <chelseamariajohn@gmail.com>, Chris Abraham <chris.phy9@gmail.com>, Danny Mathew <dannythemathew@gmail.com>, Divya Thomas <divyad12310@gmail.com>, Elena Gupta <elena.gupta@gmail.com>, Elina Joshy <elinajoshi981@gmail.com>, Evita Merin <merinrose1998@gmail.com>, Garvit Bajaj <garvitbajaj@gmail.com>, Grace Monica S Mehta <gracemehta98@gmail.com>, Gurprej Singh <sidhgurprej76@gmail.com>, Hanna Elsa <hannaelisa98@gmail.com>, Isabel Thomas <isabellth@gmail.com>, Kapil Goswami <kgoswami33@gmail.com>, Latara <lv643@gmail.com>, Mephin Phillip Alamcheril <mephinphilip@outlook.com>, Milton E Peter <miltonemestepeter@gmail.com>, Mona Kumari <kumarimona1610@gmail.com>, Nandana Bhattacharya <nandana.bhattacharya2@gmail.com>, Nilay Krishna <nyanameshkrishna@gmail.com>, Nishant Mathew Biju <nishantmbiju@gmail.com>, Nitin Abraham Prasad <nitinabrahamprasad@gmail.com>, Pamei Champoudai <pameichampoudai@gmail.com>, Priyanka R Iyer <priyankariyer@gmail.com>, Rahul Roy <rsophroy502@gmail.com>, Robin Bajaj <robinbajaj46@gmail.com>, Rohan Mahnot <rohan.mahnot@gmail.com>, Ronika Sarkar <ronikasarkar777@gmail.com>, Samuel Veer Singh <samuelsingh007@gmail.com>, Satvik Mishra <satvikmishra14@gmail.com>, Sayan Banerjee <sayan.banerjee1998@gmail.com>, Shivi Bajaj <shivibajaj1107@gmail.com>, Shradha P Jain <shradhajakapana13@gmail.com>, Sibya Sara Cheriyan <sibyasaracherian@gmail.com>, Sumapriyo Roy <sumapriyo@gmail.com>, Stefan Joseph De Souza <skubjed@live.co.uk>, Sukhveen Kaur <skukh1311kaur@gmail.com>, Vidhi Kundu <raistij1035@gmail.com>, Vineeta Bhardwaj <vineetabhardwaj3125@gmail.com>, Vivin Vinod <vivin1998@gmail.com>, Zeon Makamel <zeon.makamel@gmail.com>, 12premasaharan@gmail.com, aanchalsagwal@gmail.com, aashiyashaji@gmail.com, arathypalackal99@gmail.com, deepthiponnuc@gmail.com, divyasabur98@gmail.com, vipin123@gmail.com, jaiprakash171.gupta@gmail.com, mariarejo7@gmail.com, puneetgar1722@gmail.com, Akansha Durgdung <akansha11199@gmail.com>, Akash Maurya <akash.maurya099@gmail.com>, Akshay Raj <raj.akshay1000@gmail.com>, Alan Sherry <alansherry77@gmail.com>, Alka Jobie <alkajobie@gmail.com>, Anne Masih <animeshane7@gmail.com>, Anushka Ganguli <anushka2371@gmail.com>, Ari Anand <ariananand99@gmail.com>, Chongfen Pengener <cpengener@gmail.com>, Dalbayato Basu <dalbayatob@gmail.com>, dupish morgan <dupish188@gmail.com>, EBY THOMAS <ebythomas83@gmail.com>, Fionann Jolly <fionannjolly@gmail.com>, Harsh Anand <harshanand7666@gmail.com>, jaideep phogat <phogat20jai.deep@gmail.com>, JAINU J KURUMVILA <jajainu@gmail.com>, joel jose15 <jjoelc0015@gmail.com>, Jonathan daniel <jonathan.daniel3@gmail.com>, Kshilij Singh <kshilij.singh12@gmail.com>, Lokimen Longchari <lokiter@gmail.com>, Lucierne <lavarye.julian@yahoo.co.uk>, Manish Kumar 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Gmail - Meera Memorial Paper Reading Competition

<reuelsouza1234@gmail.com>, Richard <ricst321@gmail.com>, nishabh jain <jainnishabh91@gmail.com>, riz noronha <riz.noronha3@gmail.com>, rohit vasav <rohitegism@gmail.com>, rudra katra <rudrakatra20@gmail.com>, s aditya krishna <adisababa1001@gmail.com>, samuel john <sj45599@gmail.com>, samuel khangte <samuelzkhang@gmail.com>, sarthak vijay <vijaysarthak@yahoo.com>, suhani <suhanianeesh@gmail.com>, thomson B mamootil <mamootil@gmail.com>, trisha debnath <maltrisha1416@gmail.com>

Dear all,

The Meera Memorial Paper Reading Competition is an annual event organised by the Physics Society where students, from all the three years, present a paper on a topic of their choice, in a time frame of 15 minutes (including set up and transition time). The term "Paper" has been used in a very broad sense here as there are no restrictions as such on what you can present: summer projects, term projects or anything new that you have studied or will study up on works. Your paper need not be an original but what the audience should take away from your presentation is a new insight or a different way of looking at a particular subject.

Consider this to be an introduction for people to get them thinking and preparing for this event. This is an open event so feel free to invite your friends from other colleges within DU and beyond. To give you an idea of the kind of projects that you might undertake find a list of papers that have been presented in the past years. However, don't think of it as representative of the kind of paper that you are supposed to present. You are in fact encouraged to come up with something entirely different.

- 1. Random Walks and Electrostatics:** The speaker explained how certain types of random walk problems and boundary value problems in electrostatics are formally equivalent and how this is helpful in constructing numerical techniques to solve problems in one field with an intuition in the other.
- 2. The Symphony of the Heavens:** This was a paper on the Ptolemy's model of the universe, and how it worked. The role of placeholders in science has always been pivotal, be it the concept of phlogiston or neutrinos. Ptolemy's model of the universe was no exception. It was as beautiful as it was rigorous, and it predicted the motion of the bodies in the heavens to astonishing accuracies for its time. During the talk, the speaker made an excellent attempt to present the geocentric model proposed by Ptolemy in the Almagest, with a focus on planetary motion, and the concept of the two equivalent hypotheses of eccentric and epicyclic orbits.

- 3. The World at Low Reynolds Number:** The speaker talked about what it means for a system to be at a low Reynolds number, and looked at the motion of microorganisms in this regime and the efficiency of their movement.
- 4. The HIV Infection:** The speaker explained how a mathematical model for the HIV infection can be constructed.
- 5. A Model of the Oscillation of the Sun:** The speaker explained how a mathematical model for the oscillation of the sun can be constructed and explained the necessary physics behind it.
- 6. A Computational Model of the Greenhouse Effect:** The speaker computationally modelled the greenhouse effect and hence tried to predict the average temperature of the earth after a few decades.
- 7. Meteoric Fall:** The speaker presented a possible mathematical model for the entry of a meteor into the earth's atmosphere, and gave an overview of the possible consequences.
- 8. The Black Hole Lensing:** The speaker simulated the effect of a black hole on light using C++ and how it lenses the object around it.

The competition will be held tentatively on 17th and 18th of January 2019. Interested students should register by sending their names and topics to physics.stephens@gmail.com latest by the week before the competition. A Pdf stating rules regarding competition is attached with the mail. Please go through once.

Note: First-years are especially encouraged to participate as there is a special prize for them. NO REGISTRATION FEE REQUIRED.

Thanking you
The Physics Society

Competition Rules (6).pdf
714K

Physics Society <physics.stephens@gmail.com> Fri, Dec 28, 2018 at 2:20 AM
To: Hardik Phalet <hardik.phalet@gmail.com>

https://mail.google.com/mail/u/0/?ik=558d4cef03&view=pt&search=all&permthid=thread-a%3A7754855432485574137&sim... 2/3

Publicity Mail Sent on 22nd December, 2018 for The Paper Reading Competition



Meera Memorial Paper Reading Competition

It is a prestigious annual competition where students present a paper on a topic of their choice. They may choose to present research projects, term projects or their individual insights into a particular subject.

Rules for the competition

- Students from both Bachelors and Master's degree are eligible.
- The presentation can be given by an individual or in a group of two.
- Participants will be given a time slot of 15 mins. The presentation will be for 12 mins which includes set up time. This will be followed by a 3 min Q/A session.
- The participants will be judged on the basis of their presentation, content and the Q/A round.
- You can choose to present using a PowerPoint presentation or a black board.
- All the PowerPoint presentations must be emailed to physics.stephens@gmail.com latest by the week before competition.

You can register by sending us a mail to:

physics.stephens@gmail.com

Tentative Dates: January 17 and 18, 2019

Venue: NPLT, Science Block, St. Stephen's College

Time slots for presentations will be informed later.

For any Queries contact: -

Priyanka: - 8826485793

Aditya: - 9205827987

Rules for the Annual Meera Memorial Paper Reading Competition, 2019

- **The Annual Popli Memorial Aptitude Test on 22nd February 2018.**
 - 1 hour long aptitude test on Physics for students of all three years.
 - Total number of participants : 30
 - Venue : New Physics Lecture Theatre, St. Stephen's College



Popli Memorial Aptitude Test || Friday || 22nd February 2019

1 message

Physics Society <physics.stephens@gmail.com> Tue, Feb 12, 2019 at 12:00 AM
To: Aditya Singh Shekhawat <adishshekhawat@gmail.com>, Alswarya Aju <aiswarya.aju@gmail.com>, Ananya George <ananyageorge1997@gmail.com>, Anuj Kumar Singh <kanu195@gmail.com>, Arunima <arunkundu3199@gmail.com>, Chelsea Maria John <chelseamariajohn@gmail.com>, Chris Abraham <chris.phy98@gmail.com>, Danny Mathew <dannychenamkudy@gmail.com>, Divya Thomas <divya1231810@gmail.com>, Eleena Gupta <eleena.gupta@gmail.com>, Elma Joshy <elmajoshi981@gmail.com>, Evita Mehin <mehinrose1998@gmail.com>, Garvit Bajaj <gbajaj.garvit@gmail.com>, Grace Monica S Mehta <gracemehta98@gmail.com>, Gurprej Singh <sigurprej786@gmail.com>, Hanna Elsa <hannahelsa98@gmail.com>, Izabel Thomas <izabelth@gmail.com>, Kapil Goswami <kgoswami33@gmail.com>, Lalzara <rvo643@gmail.com>, Mephin Phillip Liamcheril <mephinphillip@outlook.com>, Milton E Peter <mltonemestepeter@gmail.com>, Mona Kumari <karumarimona1810@gmail.com>, Nandana Bhattacharya <nandana.bhattacharya2@gmail.com>, Nilay Krishna <nyanimeskrishna97@gmail.com>, Nishanth Mathew Biju <nishanthmbiju@gmail.com>, Nithin Abraham Prasad <nithinabrahamprasad@gmail.com>, Pamei Champoudal <pameichampoudal@gmail.com>, Priyanka R Iyer <priyankariyer@gmail.com>, Rahul Roy <rojroy502@gmail.com>, Robin Bajaj <robinbajaj46@gmail.com>, Rohan Mahnot <rohan.mahnot@gmail.com>, Ronika Sarkar <ronikasarkar777@gmail.com>, Samuel Veer Singh <samuelsingh007@gmail.com>, Satvik Mishra <satvikmishra14@gmail.com>, Sayan Banerjee <sayan.banerjee1998@gmail.com>, Shiv Bajaj <shivbajaj1107@gmail.com>, Shradha P Jain <shradhakalpana13@gmail.com>, Sibya Sara Cherian <sibyasaracherian@gmail.com>, Soumapriyo Roy <soumapriyoro@gmail.com>, Stefan Joseph De Souza <skubbie@live.co.uk>, Sukhveen kaur <sukh1311kaur@gmail.com>, Vidhi Kundu <raistig1035@gmail.com>, Vineeta Bhardwaj <vineetabhardwaj3125@gmail.com>, Vivin Vmnd <vvin1998@gmail.com>, Zeon Makamei <zeon.makamei@gmail.com>, 12premsasharan@gmail.com, aarchalsagwal@gmail.com, aashiyashaji@gmail.com, arathyalackal99@gmail.com, deepthiponnu00@gmail.com, divyasub98@gmail.com, ivipinch123@gmail.com, jaiprakash171.gupta@gmail.com, mariarej07@gmail.com, puneetgarg1722@gmail.com, Akansha Durgdung <akansha7111998@gmail.com>, Akash Maurya <akash.maurya899@gmail.com>, Akshay Raj <raj.akshay1000@gmail.com>, Alan Sherry <alansherry77@gmail.com>, Aka Jobie <akajobie@gmail.com>, Anne Masih <animeshane7@gmail.com>, Anushka Ganguli <anushka2371@gmail.com>, Arti Anand <artianand98@gmail.com>, Chongten Pongener <cpongener@gmail.com>, Dalbayato Basu <dalbayatob@gmail.com>, dupish morgan <dupish1889@gmail.com>, EBY THOMAS <ebythomas36@gmail.com>, Fionaann Jolly <fionaannjolly@gmail.com>, Harsh Anand <harshanand7666@gmail.com>, jaideep phogat <phogat20jai.deep@gmail.com>, JAINU T KURUMVILA <jainu@gmail.com>, joel jose15 <jose15@gmail.com>, Jonathan daniel <jonathan.daniel3@gmail.com>, Kshiti Singh <kshiti.singh12@gmail.com>, Loktinen Longchari <loktlrcr@gmail.com>, Lucienne 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binayak bhushan roy <bradmichaelsaw@gmail.com>, Chaitanya Varma <chaitanyavarma@gmail.com>, Clivo simon <clivosimon@gmail.com>, Dhruv Tiwari <dhruvtiwari724@gmail.com>, dithaingam parmei <parmeidithaingam@gmail.com>, Dophajimgshai mishad kharwanlaqng <mishaalkharwanlang@gmail.com>, emilia solo <soloemy08@gmail.com>, goddamn artist <prabhathoney2000@gmail.com>, Hardik Phalet <hardik.phalet@gmail.com>, hemavarshini b <hemabhaskar1299@gmail.com>, hitesh choudhary <hiteshchoudhary2001@gmail.com>, hritik yadav <hritikrao2014@gmail.com>, hukahdh aye <hukahaye7621@gmail.com>, ivana sangna <ivanasangna@gmail.com>, jenny cynthia <cynthiia12fanny@gmail.com>, jentia saji <jentiasaji@gmail.com>, jewel thomas <jewelthekekukurvinal@gmail.com>, JINU JAMES <jinujames24032001@gmail.com>, ken sps <ken.george00ps@gmail.com>, kevin varghese <kevinvarghese1600@gmail.com>, kriti baweja <kritibaweja19@outlook.com>, Libi Rachel binu <libirachelbinu@gmail.com>, luckyson ningthoujam <luckysonningthoujam16461@gmail.com>, madan kumar <mdnmb@gmail.com>, Manish kumar <manishtamta1604949@gmail.com>, meera nair <meera2nair@gmail.com>, michelle mathew <michmch1999@gmail.com>, navdeep <navdeepdahiya@gmail.com>, navya maria <navyamariyashiju01@gmail.com>, neel lohit dash <neellohitdashpathajoshi@gmail.com>, neelam khan <neelamkhan37@gmail.com>, nel poddar <nelpldr2812@gmail.com>, nevin kuruvilla thomas <nevinthomas31@gmail.com>, panya jain <jainpanya24@gmail.com>, prince latwal <prince.latwal00@gmail.com>, Priyank John <priyank.john16@gmail.com>, rahul mallikarjun

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Dear All,

The Popli Memorial Aptitude test will be conducted on **Friday, 22nd February 2019 at 12:30 PM** in the NPLT. It will test your aptitude in different areas of Physics covered over the three years.

Students from all three years are eligible and encouraged to participate.

All the students wishing to participate in the test should register by sending their name and year as a reply to this mail by 20th February 2019.

Hope to see you there.


All the best
The Physics Society

Mail sent to students for Popli Memorial Aptitude test, 2019



- **The 23rd Annual Popli Memorial Lecture Series** on the topic "***Gravitation and Decoherence***" by Prof. Joseph Samuel, Raman Research Institute, Bengaluru during the **13th, 14th and 15th of March 2018.**
 - Number of attendees : 130
 - Venue : New Physics Lecture Theatre, St. Stephen's College
 - Topics for the three days :
 - i. March 13 : Introduction to Relativity
 - ii. March 14 : Radiation and Equivalence Principle
 - iii. March 15 : Gravity and Decoherence



The Physics Society  St. Stephen's College

**23rd Annual Popli Memorial
Lecture Series**

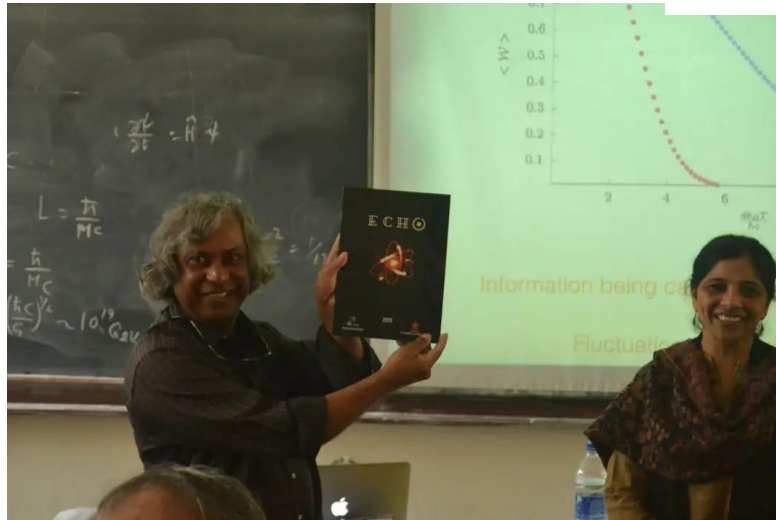
**GRAVITATION
AND
DECOHERENCE**

By
Joseph Samuel
Raman Research Institute
Bengaluru

<p>March 13 Introduction to Relativity An introduction to the theory of relativity, both special and general, using thought experiments.</p>	<p>March 14 Radiation and Equivalence Principle This lecture will be aimed at understanding radiation in general relativity. In closing, the unruh effect will be discussed.</p>	<p>March 15 Gravity and Decoherence A proposal that gravitation is responsible for quantum decoherence, illustrated by a thought experiment, will be discussed.</p>
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12.30 PM | New Physics Lecture Theatre
Priyanka:8826485793 | Aditya:9205827987

Poster for 23rd Annual Popli Memorial Lecture Series





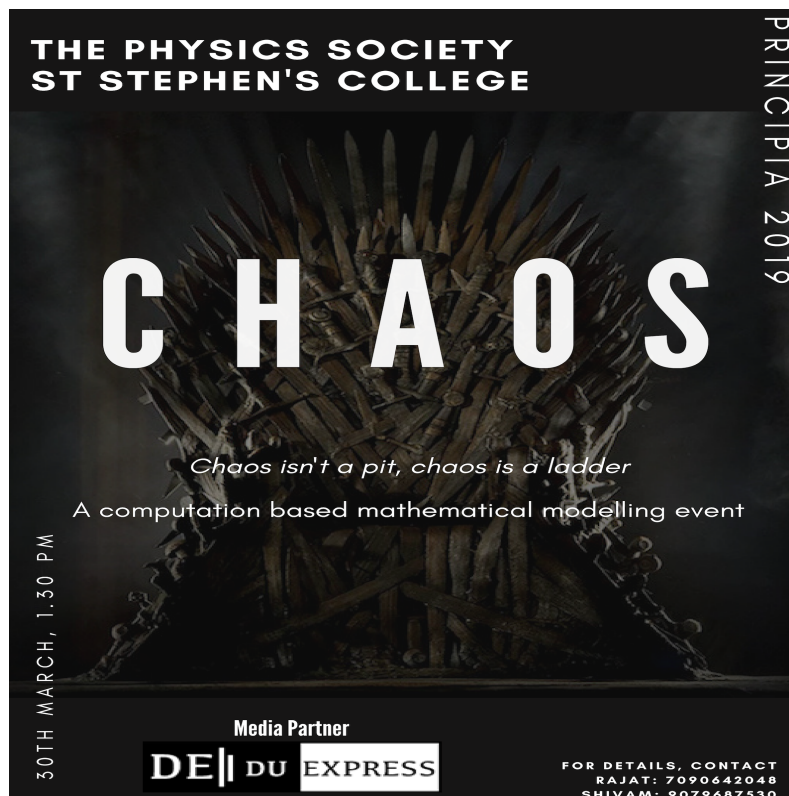
Glimpses of the Popli Memorial Lecture Series



- **The Society's Biennial Fest : Principia** : the two-day festival in collaboration with The Electronics Society on the **29th and 30th of March 2019**.

Quizzes, games, etc. conducted within Principia:

- **Chaos** : a maths and computation based event
- **Bid Wars** : an opportunity to be a part of a problem solving bidding contest where you can bid on your friend's knowledge.





THE PHYSICS SOCIETY
ST. STEPHEN'S COLLEGE
PRESENTS
PRINCIPIA '19
BID WARS
THE FIRST EPISODE
Exciting Cash prizes to be won!
29th March 2019
Vatsala : +91 9599346539
Vedant : +91 9870537571
Media Partner
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Posters for Chaos and Bid Wars

- **Drone Racing**
- **The PhyMath Quiz**



PRINCIPIA'19

The Electronics Society

ST. STEPHEN'S COLLEGE

presents

DRONE RACING 2.0

cash prize upto RS. 2500

29 march 2019
3.00 pm

Venue : Rudra lawn

Contact Sachin 7906150521

media partner
DE||DU EXPRESS

Note: you have to bring your own drone

PRINCIPIA'19

QC
QUIZ CLUB

DE||DU EXPRESS
Media Partner

THE PHYSICS SOCIETY

ST. STEPHEN'S COLLEGE

in collaboration with The Quiz Club

Present

THE PHY MATH QUIZ

DATE March 30 2019	VENUE Old Physics Lecture Theatre (O.P.L.T.)	For more Details RAJAT: 7090642048
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Posters for Drone Racing and The PhyMath Quiz



Club sessions and talks under Physics Society

The Society consists of three clubs, namely, the Feynman Club, Astronomy Club and Problem Solving Club. Talks under the Feynman club (called Feynman Talks) are delivered by scholars and academics in the field of Physics. Sessions in Astronomy and Problem solving Club are conducted by the student members of the society.

Topic	Speaker/Host	Club	Venue	Date
The Mystery of Fast Radio Bursts	Prof. Patrick Das Gupta, Dept. of Physics and Astrophysics, University of Delhi	Feynman Club	NPLT	3rd August 2018
Talk:Radio Astronomy and Radio Interferometry	Student Members	Astronomy Club	NPLT	10th August 2018
The Polar Decomposition in certain groups of importance to Physics	Prof. Viswanath Ramakrishna, University of Texas, Delhi	Feynman Club	NPLT	17th August 2018
Application of Econophysics in Tax Policy	Mr. Priyabrat Pramanik, Indian Ministry of Finance	Feynman Club	NPLT	31st August 2018
The Norton Dome Problem	Student Members guided by Dr. Abhinav Gupta	Problem Solving Club	NPLT	7th September 2018



The implementation of an Algorithm for Producing World-Class Science	Prof. Deshdeep Sahdev, QuazarTech, (ex-) IIT Kanpur	Feynman Club	NPLT	28th September 2018
The Norton Dome Problem Continued	Student Members guided by Dr. Abhinav Gupta	Problem Solving Club	NPLT	5th October 2018
The behaviour of slinky(s)	Student Members guided by Dr. Abhinav Gupta	Problem Solving Club	NPLT	26th October 2018
Talk:SWAN The Sky Watch Array Network.	Student Members	Astronomy Club	NPLT	11th January 2019
Radio Astronomy	Student Members	Astronomy Club	NPLT	25th January 2018
The behaviour of sprinklers	Student Members guided by Dr. Abhinav Gupta	Problem Solving Club	NPLT	8th February 2018
Quantum Gravity: A view from General Relativity	Prof. Madhavan Vardarajan, Raman Research Institute, Bengaluru	Feynman Club	NPLT	15th February 2019
What's dark matter and how to directly detect it?	Rahul Mehra, Ph.D, University of Bonn	Feynman Club	NPLT	11th March 2019
What holds quarks together inside a proton?	Dr. Vikram Vyas	Feynman Club	NPLT	29th March 2019



Rijsttafel and other Degustations	Dr. Bikram Phookun, University of Delhi	Feynman Club	NPLT	5th April 2019
Creating Quantum Entanglement	Akshey Thomas, Ashoka University	Feynman Club	NPLT	12th April 2019

NPLT : New Physics Lecture Theatre, Science Block, St. Stphens' College

The following are screenshots of publicity messages for Feynman Talks



The Feynman Club

St. Stephen's College



invites you for a talk titled

The mystery of Fast Radio Bursts

by

Dr. Patrick Das Gupta

Department of Physics & Astrophysics,
University of Delhi

Abstract:

Ever since, in 2007, Duncan Lorimer and his team detected a solitary radio-pulse lasting for about 5 milli-seconds in the archival data of the Parkes telescope, a new field in astrophysics namely the study of Fast Radio Bursts (FRBs) has emerged.

So far, radio-astronomers have detected about 35 FRBs with the help of telescopes operating at frequencies ranging from about 800 MHz to about 4 GHz. A typical FRB event is characterized by a narrow radio-pulse

having duration of about few milli-seconds. It has been deduced that these bursts, releasing energy of the order of 10^{43} ergs in radio, occur at cosmological distances. There is a frenetic activity going on currently to understand the physical nature of these cosmic objects. Till now, only one FRB has been observed to release such energies intermittently, and this source lies in a dwarf galaxy. To compound the mystery further, none of the FRBs (including the repeating one) show up in visible, X-rays or gamma rays. In this lecture, we will discuss these cosmic sources along with the basics of different models posited to explain the FRB conundrum.

Date: Friday, 3rd August 2018
Venue: NPLT
Time: 12:30 PM

The Feynman Club

St. Stephen's College



invites you for a talk titled

Application of Econophysics in Tax Policy

by

Mr Priyabrat Pramanik

Ministry of Finance, India

Abstract

Though Econophysics is being used in Tax Policy in advanced countries like USA, UK, etc. it is hardly used in Indian Tax Policy. Mr Pramanik has had the opportunity to use it in framing the Tax Policy for India in Digital Economy. Taxation of the Digital Economy is a very complex problem and the whole world is busy searching for a solution to it. Till now there is no unanimity among nations. It is hoped that some solution would be found in the next G-20 Summit meeting among the world leaders in December 2018.

In his talk, Mr Pramanik would like to share his experience of how they came to the conclusion that econophysics is very useful and what are the compelling circumstances where the conventional economic theory was failing to address the entire problem or look very deep into it.

Date: Friday, 31st August 2016.

Venue: NPLT
Time: 12:30 PM



The Feynman Club

St. Stephen's College



invites you for a talk titled
The Implementation of an Algorithm for Producing World-Class Science

By
Prof. Deshdeep Sahdev

QuasarTech/(Ex-)IIT Kanpur

Abstract

It is an interesting and remarkable fact that every Nobel prize winning piece of work in Experimental Physics was carried out on apparatus designed and developed by the physicist in question, be it Rutherford, Raman, Mosebauer or Biring. I will start by taking the audience through a fascinating journey which saw my team developing Scanning Probe Microscopes and Physical Properties Measurement Systems all the way out to internationally competitive standards. I will then describe how we have gone about enhancing the base so developed for research in material science, condensed matter physics and nano-technology, with packages for scientific computation, many designed and developed (like our instruments) essentially from scratch. By the end of the talk, I hope to have convinced the audience that the complete & seamless, indigenous integration of theory, computation, experiment and instrumentation, which we are beginning to achieve at QuasarTech holds out the promise (not only for us but for centers all over India) of tackling some really interesting physics problems, a few of which I will describe.

About the Speaker

Dr. Sahdev is a Stephanian who trained, as a particle theorist, in leading groups at Cornell University, Univ. of Pennsylvania, and the International Center for Theoretical Physics (Italy) among others. While at these centers, he worked and interacted with several Nobel laureates including Prof. Salam, Ken Wilson, Steven Weinberg and Richard Feynman. Prof. Sahdev is a Member of the Expert Advisory Group of the Device Development Program of the Department of Science and Technology.

Date: Friday, 28th September 2018.

Venue: NPLT

Time: 12.30 PM

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The Feynman Club

St. Stephen's College



invites you for a talk titled

Quantum Gravity:

A view from General Relativity

by

Prof. Madhavan Vardarajan

Raman Research Institute, Bengaluru

Date: Friday, 15th February 2019

Venue: NPLT

Time: 12.30 PM

The Physics Society



The Feynman Club

St. Stephen's College



invites you for a talk titled

What's Dark Matter and how to directly detect it?

by

Rahul Mehra

PhD, University of Bonn

Abstract:

In this talk, I will introduce and motivate the hypothesis of particle dark matter (DM) which can convincingly explain multiple independent observations for "missing mass" in the universe.

These observations functioning as evidence for DM include galactic rotation curves, X-ray emission and weak lensing of galaxy clusters, the Cosmic Microwave Background (CMB), N-body simulations for structure formation and the Bullet cluster. I will then summarise all the (expected) properties of DM and briefly talk about one of the search strategies for detecting it - direct detection. After a cursory explanation of direct detection, I will conclude by presenting an overview of the current landscape of direct detection searches.

Date: Monday, 11th March 2019
Venue: NPLT
Time: 2:00 PM

The Feynman Club

St. Stephen's College



invites you for a talk titled

What holds the quarks together inside a proton?

or

How to have fun with Poisson's Equation?

by

Dr Vikram Vyas

Physics in the Field

Abstract

We know that a proton is made of elementary particles called quarks, but no isolated quark has been observed. In my talk I will explore the nature of the force between the quarks that confines them to a proton using an equivalent but qualitatively different description in terms of strings living in a curved higher dimensional space. Using the equivalent description we will

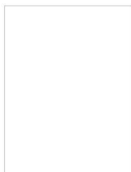
calculate the field lines connecting a quark and an antiquark. This will be done by numerically solving an equation which is identical to the Poisson's equation in the presence an inhomogeneous and anisotropic dielectric constant. We will find that field-lines are collimated into a flux-tube which leads to a linear attractive potential that is responsible for the confinement of the quarks into a proton.

Date: Friday, 29th March, 2019.
Venue: NPLT
Time: 12:30 PM



The Feynman Club

St. Stephen's College



invites you for a talk titled

Rijsttafel and other Degustations

by

Dr Bikram Phookun

Ashoka University

Abstract

A talk about my experiences as a teacher of physics at Ashoka University, in particular, the process of framing a physics programme within a set of constraints different from those at Delhi University.

Date: Friday, April 5th, 2019.

Venue: NPLT

Time: 12:30 PM

The Physics Society

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7/9/22, 4:50 PM

Gmail - Feynman Club Talk | 5th April | Dr Bikram Phookun

The Feynman Club

St. Stephen's College



invites you for a talk titled

Creating Quantum Entanglement

For studies on causality

by

Akshey Thomas

Ashoka University

Date: Friday, April 12, 2019

Venue: NPLT

Time: 12:30 PM

The Physics Society

<https://mail.google.com/mail/u/1/?ik=558d4ce03&view=pt&search=mail&permthid=thread-a%3A7071588634190183428&simpr=msg-a%3A19968...> 3/3