

Report of Webinar on
'Entanglement Entropy and Holography'
organized under
SLC Eminent Lecture Series 2021-2022

This is hereby reported that a Webinar on '**Entanglement Entropy and Holography**' was organized by Shyam Lal College, University of Delhi under the aegis of DBT Star College Scheme in collaboration with IQAC on **08th September 2021** under **SLC Eminent Lecture Series 2021-2022** using Zoom as an online platform (**Annexure 1**). **Prof. Justin David**, Centre for High Energy Physics, Indian Institute of Science, Bangalore, was the keynote speaker of the day. The SLC Eminent Lecture Series 2021-2022 has been launched with the purpose of offering a holistic academic approach to the young pupil by fostering innovative thinking and research aptitude through interaction with eminent speakers and professionals from varied areas of science and technology. It is believed that such an engagement of educators and students with the experts would enable them in harnessing their skills and creativity to accelerate the innovation at personal as well as organizational levels. More than 80 participants, including students and teachers from various disciplines such as Mathematics, Physics and Chemistry, attended the webinar with great enthusiasm. The feedback forms reflected that a majority of participants found the webinar to be very useful and informative and were highly satisfied with the ideas and concepts so presented (**Annexure 2**). For this overwhelming success, the organizers are very thankful to **Prof. Rabi Narayan Kar** (Principal, SLC) and **Prof. Kusha Tiwari** (Coordinator IQAC) for their support and guidance throughout the organization of this event. Glimpses of the event and list of the participants who filled the feedback form is attached herewith as **Annexure 3 and 4**.

Annexure 1



SLC (University of Delhi)
SHYAM LAL COLLEGE



Department of
BioTechnology,
Government
of India

*under the aegis of DBT Star College Scheme
in collaboration with IQAC*

Organizes

**SLC Eminent Lecture Series
2021-2022**

08th Sep 2021; 04:00 PM on ZOOM

Keynote Speaker



Prof. Justin David

Centre for High Energy Physics
Indian Institute of Science, Bangalore

Title

**“Entanglement
Entropy and
Holography”**

REGISTRATION LINK

<https://forms.gle/cusjBnVeqL7VQvjL8>

**E-certificates
will be given !**

ORGANIZING MEMBERS

Dr. Ashu Gupta
Overall Coordinator DBT,
Department of Chemistry

Dr. Monika Goyal
Physics Coordinator, DBT

Prof. Kusha Tiwari
Coordinator IQAC

Prof. Rabi Narayan Kar
Principal, SLC

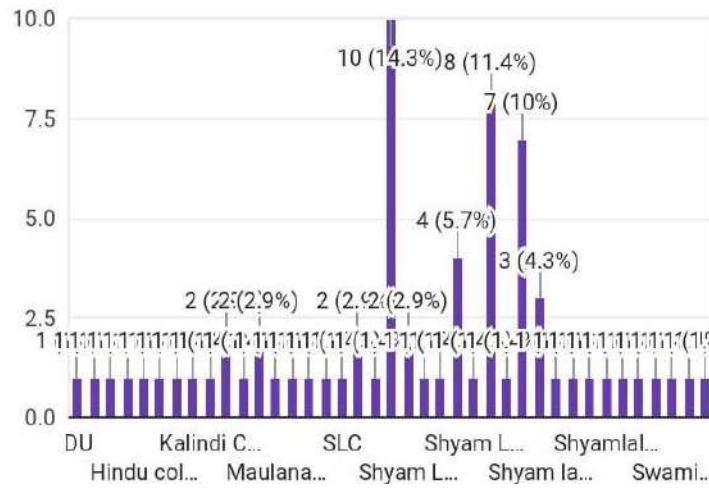
Ms. Radhika Gupta
Dr. Yukti Monga
Teacher Coordinators,
Department of Chemistry

Aviral, Vansh,
Anshum & Ayushi
Student Coordinators

Annexure 2

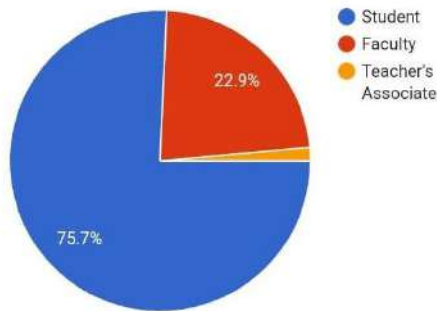
Institute

70 responses



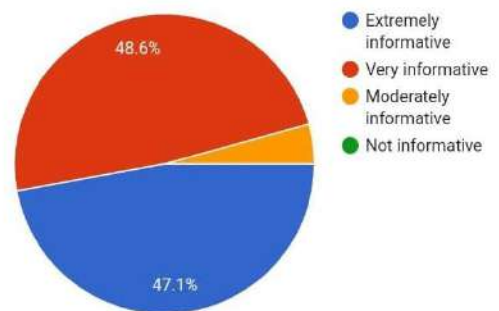
Designation

70 responses



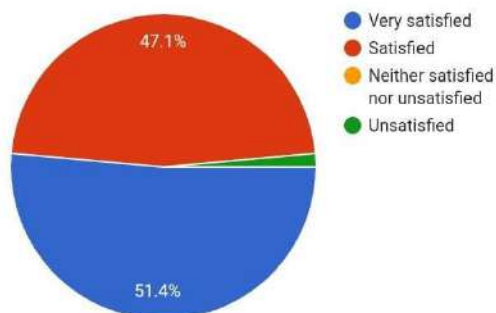
How informative did you find the webinar?

70 responses



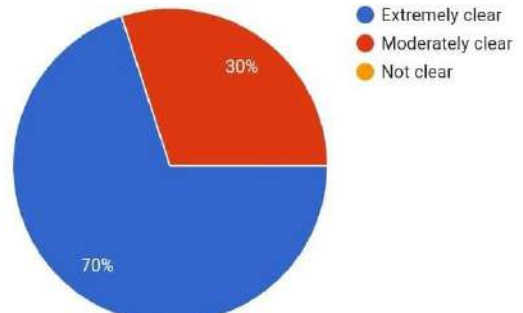
Overall how satisfied were you with this webinar?

70 responses



How clear were ideas and concept we presented?

70 responses



Annexure 3

Zoom Meeting | You are viewing Justin David's screen | View Options

Recording

ENTANGLEMENT ENTROPY AND HOLOGRAPHY

JHEP 1404 (2014) 081 with Shouvik Dutta
JHEP 1406 (2014) 096, Phys.Rev. D90 (2014) 4, 041903, with Shouvik Dutta, Michael Ferlino, S. Prem Kumar
JHEP 1504 (2015) 041 with Shouvik Dutta and S. Prem Kumar
JHEP 1608 (2016) 127 with Subhi Khattopul and S. Prem Kumar
JHEP 04 (2020) 094 with Barsha G. Chowdhury
arXiv:2105.03662 with Barsha G. Chowdhury

Participants (80)

Find a participant

- RG Radhika Gupta (Co-host, me)
- SL Shyam Lal College (Host)
- JD Justin David (Co-host)
- DA Dr. ashu Gupta (Co-host)
- AK Anshum Kumar (Co-host)
- DN Dr.Rabi Narayan Kar (Co-host)
- VK Vansh Kochhar (Co-host)
- 2S 2641 Srijan Sinha
- 2S 2647 Sandeep Yadav
- 2S 2652 Sandhit Rathi
- 87 896 7108 3731
- AG aashi gupta
- AS Abhay Shukla
- A Abhi

Unmute | Start Video | Security | Participants (80) | Chat | Share Screen | Record | Reactions | Leave

Type here to search | 32°C | 16:14 08-09-2021

Zoom Meeting | You are viewing Justin David's screen | View Options

Recording

- Entropy of a probability distribution: (Von-Neumann, 1932) is defined as

$$S = -k_B \sum_{i=1}^N p_i \log p_i$$

$k_B = 1.38 \times 10^{-23} \text{ m}^2 \text{ kgs}^{-2} \text{ K}^{-1}$,
is the Boltzmann constant which connects this definition to conventional units in thermodynamics.

We will suppress this constant from now on.

Participants (81)

Find a participant


- RG Radhika Gupta (Co-host, me)
- SL Shyam Lal College (Host)
- JD Justin David (Co-host)
- AK Anshum Kumar (Co-host)
- DA Dr. ashu Gupta (Co-host)
- DN Dr.Rabi Narayan Kar (Co-host)
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- AG aashi gupta
- AS Abhay Shukla
- A Abhi

Unmute | Start Video | Security | Participants (81) | Chat | Share Screen | Record | Reactions | Leave

Type here to search | 32°C | 16:18 08-09-2021

Zoom Meeting

Recording



A grid of 25 video thumbnails in a 5x5 layout. The thumbnails show various participants, some with their names visible below them. The names include Justin David, Radhika Gupta, Anshum Kumar, Dr. ashu Gupta, Dr. Rabi Narayan Kar, Payal Kashyap, Prachi Gupta, Prachin Kumar, Raju Ram, Shyam Lal College, Dr. Dimpal Singh..., Yugi Jogishwar, Arun, Aviral Singh, Vansh Kochhar, Abhay Shukla, 2647 Sandeep Va..., Jasdeep Singh, Vipul Rai (8706), Harsh Verma, reshu, Dr. Rashmi Men..., Ashutosh Bhard..., and ABHISHEK GUPTA.

Participants (52)

Find a participant

- RG Radhika Gupta (Co-host, me)
- SL Shyam Lal College (Host)
- DA Dr. ashu Gupta (Co-host)
- DN Dr. Rabi Narayan Kar (Co-host)
- JD Justin David (Co-host)
- AK Anshum Kumar (Co-host)
- VK Vansh Kochhar (Co-host)
- 2S 2641. Srijan Sinha
- 2S 2647 Sandeep Vadav
- 2S 2652 S... [Ask to Unmute](#) [More >](#)
- 8A 8884 A. Prerak Tomar
- AS Abhay Shukla
- AN Abhisha Nagar
- AG ABHISHEK GUPTA

Invite [Mute All](#)

Type here to search

31°C 17:26 08-05-2021

Annexure 4

Name	Institute	Designation
SANJANA GROVER	DU	Student
Megha Kumari	Shyam Lal college	Student
Shainty Kumar	Shyam lal college	Student
Ajay Pratap Singh	Shyam Lal College	Faculty
AmishKumarTripathi	Shyam Lal college	Student
Shrawan Kumar	Shyam Lal college	Student
Sanchit Rathi	Shyam Lal college	Student
Ayush	Shyam lal college	Student
Dr. Rashmi Menon	Kalindi College, University of Delhi	Faculty
Ayushi jain	Shyam lal college	Student
ARGHA MODAK	Maulana Azad College	Student
Neha Sharma	Shyam Lal College	Student
Arun Goyal	Shyamal college	Faculty
Neha Sharma	Shyam Lal College	Student
Gagan Sharma	Shyam Lal college DU	Student
ARITRA SAHA	MAULANA AZAD COLLEGE	Student
Abhishek Chauhan	Shyam Lal College	Student
Abhay Shukla	Shyam Lal College	Student
Sandeep Yadav	Shyam Lal College(Day)	Student
Aryan Singh	Shyam Lal College,University of Delhi	Student
Abhilasha Nagar	Shyam Lal College, University of Delhi	Student
Sweta Mehra	Shyam Lal College	Student
Shainty KUMAR	Shyam lal college	Student
DR. RESHU CHAUDHARY	SHYAM LAL COLLEGE	Faculty
Gautam Porwal	Shyam Lal College	Student
Sunesh Kumar Jha	Shyam Lal College, Delhi University	Student
Vivek	Shyam lal college	Student
Dr. Rashmi Menon	Kalindi College, University of Delhi	Faculty
Dr Manish Kumar Kansal	Hindu college, Delhi University	Faculty
Niharika Singh	University of Delhk	Student
Sanchit Rathi	Shyam Lal college	Student
Ritik Kumar Das	Shyam Lal College, University of Delhi	Student
Dr. Sharmistha Lahiry	Sri Aurobindo College	Faculty
Aryansh Rajora	Shyam Lal College	Student
Jasdeep Singh	Shyam lal college	Student
Sanchit Rathi	Shyam Lal college	Student
Mr. Pradeep kumar sharma	Shyam lal college	Faculty
Srijan Sinha	Shyam Lal College	Student
Dr. Sanjit K. Das	Maulana Azad College, Kolkata-700013	Faculty

Tushar chaudhary	Delhi university	Student
Harsh Verma	Shyamlal College, University of Delhi	Student
Dr. Monika Bassi	Kalindi College	Faculty
PRADUMN KUMAR	Hindu College, University of Delhi	Faculty
Vipul pal	Shyam lal college morning	Student
Deepak Kumar Singh	Shyam Lal College, University of Delhi	Student
Sneha Chaudhary	DU , Shyam lal College	Student
Yukti Monga	shyamlal college	Faculty
Ashutosh Bhardwaj	Shyam Lal college	Student
Neha Sharma	Shyam Lal college	Student
Sanjana Dhull	SLC , DU	Student
Payal Kashyap	Shyam Lal College	Student
Simran Raj	Shyam lal college	Student
Ruby Gupta	Swami Shraddhanand College University of Delhi	Faculty
Prachi gupta	Shyam lal college	Student
ARITRA SAHA	MAULANA AZAD COLLEGE	Student
Dr Manish Kumar Kansal	Hindu college , Delhi University	Faculty
ABHISHEK GUPTA	SHYAM LAL COLLEGE	Student
Aviral Singh	Shyam Lal College, University of Delhi	Student
Sanjana Dhull	SLC , DU	Student
Payal Kashyap	Shyam Lal College	Student
Mansi Singh	Shyamlal college	Student
Unnaty Karn	SLC	Student
VANSH KOCHHAR	Shyam lal college	Student
Dr Manish Kumar Kansal	Hindu college , Delhi University	Faculty
Nadeem ahmed	Shyam lal college, DU	Student
Vikram Singh Karki	SLC(day)	Student
Kumar Ratan	Shyam Lal College	Student
Smriti Singh	Jamia Hamdard	Teacher's Associate
Arihant yadav	Kirorimal college	Student