



Webinar On Specialized topics in Physics

Organized by

Department of Physics

(with IQAC)

Srikrishna College, Bagula

(A college under the University of Kalyani and NAAC Re-accredited with "B" Grade)



Date and Time: 10:30 am – 1 pm on 5th June, 2021 (Saturday)

Online platform : Google Meet

Speakers

Title and Abstracts



Dr. Satyaki Kar
Assistant Professor
AKPC Mahavidyalaya, India

Title : *Quantum Oscillation in Topological Nodal Line Semimetals*

Abstract : *Quantum oscillation occurs when an electronic system is acted upon by a time varying strong magnetic field. From our text book knowledge, we have seen how Landau quantization occurs in a three dimensional electron gas system in presence of a magnetic field. There a constant variation of the field causes oscillations in the density of states and thereby in quantities like magnetization, conductivity etc. We discuss similar effects when strong fields are applied in topological nodal line systems. Using simple models one can show how a change in the direction of the field can change the topological nature of the magnetic oscillations.*



Dr. Subhasis Samanta
Post doctoral researcher,
Jan Kochanowski University, Poland

Title : *The Phase Diagram of Strongly Interacting Matter*

Abstract : *A basic question of physics is what ultimately happens to matter as it is heated or compressed extremely. At very high temperature and/or density the fundamental degrees of freedom of the strong interaction, quarks and gluons, come into play and a transition from matter consisting of confined hadrons to a state of deconfined quarks and gluons is expected. The study of possible phases of strongly interacting matter is at the focus of many research activities worldwide. A critical point is also expected in the phase diagram of the strongly interacting matter. In this presentation I will discuss about ongoing theoretical and experimental efforts to understand this phase diagram.*

Register for free at <https://forms.gle/wUKLs8VHzG478ZVx7>
Last date of registration : 03/06/2021. Capacity: 250 participants. **E-certificates to be issued.**

Tentative Program Schedule

10:30 am : Opening address by *Mr. Anup Kumar Bhadra (GB President)*

Welcome address by *Dr. Sukdeb Ghosh (Principal)*

Welcome address by *Mrs. Mahuya Ghosh (IQAC Coordinator)*

11:00 am : Lecture by *Dr. Satyaki Kar*

11:40 am : Q &A Session

11:50 am : Lecture by *Dr. Subhasis Samanta*

12:30 pm : Q & A Session

12:40 pm : Concluding remarks by *Mrs. Puspita Mahata (NAAC Coordinator)*

Organizing Committee

Patron : Mr. Anup Kumar Bhadra (*Governing Body President, Srikrishna College, Bagula*)

Chairperson : Dr. Sukdeb Ghosh (*Principal, Srikrishna College, Bagula*)

Convenors : Dr. Tushar Kanti Bose (*Assistant Professor, Department of Physics*)
Dr. Sujay Pal (*Assistant Professor, Department of Physics*)
Dr. Ankita Indra (*Assistant Professor and H.O.D., Department of Physics*)

Coordinators : Ms. Nandita Biswas (*State aided college teacher II, Department of Physics*)
Mr. Supratick Adhikary (*State aided college teacher II, Department of Physics*)
Ms. Sriparna Paul (*State aided college teacher II, Department of Physics*)
Mr. Rakesh Sen (*State aided college teacher I, Department of Physics*)
Ms. Piyasi Shit (*State aided college teacher II, Department of Physics*)
Ms. Ankita Das (*State aided college teacher II, Department of Physics*)

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