

SSES Amt's Science College, Congress Nagar, Nagpur
Guest Lecture

On

"Fermi Condensate: The sixth state of matter?"

Session 2021-2022

Shri Shivaji Education Society, Amravati's

Science College, congress Nagar, Nagpur

Department of Physics

Session 2021-22

NOTICE

Date: 05/04/2022

All the students and faculty members of department are hereby informed that Department of Physics is organizing **Guest Lecture on "Fermi Condensate: The sixth state of matter?"** dated **08/04/2022**. All students should remain present for the same.



Dr. S. W. Anwane
Professor and Head
Department of Physics
Shri Shivaji Education Society Amravati's
SCIENCE COLLEGE
Congress Nagar, Nagpur.

Head
Department of Physics



“I never teach my pupils, I only attempt to provide the conditions in which they can learn.”

—Albert

Einstein

Following the words of Albert Einstein, Physics Society, Shri Shivaji Education Society Amravati's Science college Congress Nagar, Nagpur organized a **Guest Lecture** on the topic **“Fermi Condensate: The sixth state of matter?”** for UG & PG students of the Physics department on 8th April 2022 at 11:00 am in Physics Department. The Guest Speaker for the session was **Dr Subhash Kondawar, Professor** in the Post Graduate teaching Department of Physics, Rashtrasant Tukdoji Maharaj Nagpur University. Prof Subhash Kondawar was heartily welcomed with a bouquet as a token of love by Principal Dr M P Dhore. Dr S W Anwane, Professor and Head of the Department of Physics introduced the purpose of Physics Society and the activities conducted so far. The Programme was conducted by Ms Shweta Iyer (M Sc Sem-II) while the guest speaker was introduced by Ms Niharika Saxena (B Sc Sem VI) and Mr Viplov Dhoke (M Sc Sem II) proposed a Vote of Thanks. Dr Mrs R J Dhokne, Coordinator Physics Society, and all faculty members worked hard for the success of the programme.

Prof Subhash Kondawar began the lecture by stating the basics of statistical mechanics. He introduced elementary particles in view of statistical mechanics. The fifth state of matter is Bose-Einstein Condensate like other states that we know; solid, liquid, gas, and plasma. The guest lecture initially focused on equipping students with the theory of Bose-Einstein Condensate. Then the speaker solemnly elucidated the reasons for the BEC to be called the fifth state of matter. He delivered an enriching argument about the BEC and the Fermi Condensate and drew everyone's attention toward the actual understanding of Fermi condensate. At last, he effortlessly concluded that Fermi Condensate is not called the sixth state of matter by beautifully bestowing the reasons. His strategy to build up the

understanding of students about the topic by making them climb through stairs of different concepts one at a time leading them to click “why Fermi Condensate isn’t the sixth state of matter?” was appreciable.

After his lecture, the students were given time to interact with him. The students engaged thoroughly with him in getting their concepts clear and he creatively provided them with the explanation that they were looking for. His lecture proved to be a very informative and interactive session.

Action Taken: The department ensures a successful and engaging guest lecture on Fermi condensates, promoting interests and knowledge sharing among students and faculty in the field of condensed matter physics. A departmental seminar series were developed on condensed matter physics and quantum materials. Participants were encouraged to pursue research projects or internships related to Fermi condensates and ultracold atoms. The lecture’s success was shared with the university or college through a press release or newsletter.

**Shri Shivaji Education Society Amaravati's
Science College, Congress Nagar, Nagpur
Department of Physics**

**Guest Lecture
On
“Fermi Condensate: The sixth state of matter?”**

8th April 2022

Name of Teacher : Dr. S. W. Anwane

Feedback Form

Name of Student :

- 1) How clear were the instructions provided for the physics activities?
 Excellent
 Good
 Average
 Poor
- 2) How engaging did you find the physics activities?
 Excellent
 Good
 Average
 Poor
- 3) To what extent did the activities help you grasp the key concepts ?
 Excellent
 Good
 Average
 Poor
- 4) How appropriate were the difficulty levels of the physics activities for your current understanding?
 Excellent
 Good
 Average
 Poor

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- How clear were the instructions provided for the physics activities?
- How engaging did you find the physics activities?
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Dr A A Halder
 Coordinator, IQAC
 Science College,
 Congress Nagar, Nagpur

Prof. M. P. Dhore
 Principal
 Science College,
 Congress Nagar, Nagpur

