

# **Ms. Anju**

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## **CURRENT POSITION**

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Research Scholar at Department of Physics and Astrophysics, University of Delhi, 110007.

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## **PROFESSIONAL EXPERIENCE**

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- Guest Lecturer at Sanskar Bharti College, Pali, Mahendergadh, Haryana, from **July 2015** to **Dec 2015**.
  - Junior Research Fellow at Department of Physics and Astrophysics, University of Delhi, from **March 2017** to **March 2019**.
  - Senior Research Fellow at Department of Physics and Astrophysics, University of Delhi, since **April 2019**.
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## **RESEARCH INTEREST**

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Quark-Gluon Plasma, Theoretical High Energy Physics, Particle Physics, and Quantum Chromodynamics.

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## **EDUCATION**

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### **Ph.D. Pursuing (March 2016- till now)**

*Department of Physics and Astrophysics, University of Delhi, Delhi*

- Thesis Title: **Phenomenological Study of Heavy Ion collision**
- Supervisor: **Prof. S. Somorendro Singh**
- Thesis Status: Expected to be submit by April 2022.

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### **M.Sc. Physics (July 2012- July 2014)**

Department of Physics and Astrophysics, University of Delhi, India

- Specialization: Mathematical Physics, Laser and Spectroscopy, Cosmology and General Theory of Relativity (GTR)
- Marks (in Percentage) : **57**

### **B.Sc. Physics, Chemistry, and Mathematics (July'2009- July'2012)**

Maharshi Dayanand University, Rohtak, Haryana

- Marks (in Percentage): **66.7**

### **Higher Secondary Examination (12<sup>th</sup>Class)(June 2009)**

*Haryana Board of School Education (H.B.S.E.)*

- Subjects: Physics, Chemistry, Mathematics, English, and Hindi
- Marks (in Percentage): **75** (1<sup>st</sup> Division)

### **Secondary Examination (10<sup>th</sup>Class)(June 2007)**

Haryana Board of School Education (H.B.S.E.), Haryana

- Subjects: Science, Mathematics, Social Science, Sanskrit, English, and Hindi
- Marks (in Percentage): **82** (1<sup>st</sup> Division)

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## **PROFESSIONAL HONORS, AWARDS, AND FELLOWSHIPS**

- Received **Junior Research Fellowship (JRF)** in DEC 2016 from University Grants Commission(UGC), India. (**Rank 255**)
- **GATE Qualified** in 2016 and received a certificate from the Council of Scientific & Industrial Research (CSIR), India. (**Rank 1140**)

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## **EXPERTISE AND COMPUTER SKILLS**

- Window and Linux
- Programming Languages: C, C++, Fortran, Scilab and MATLAB.
- Mathematica.

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## PUBLICATIONS

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### ➤ *Peer-Reviewed Journals*

1. **Anju Dahiya**, and S. Somorendro Singh. "Equation of State of a PNJL Model with Chemically Equilibrium QGP." **Indian Journal of Pure & Applied Physics**, 57,664-667, 2019.
2. **Anju Dahiya**, and S. Somorendro Singh. "Equation of State of PNJL Model under the Influence of Thermal mass and Magnetic field." **Pramana Journal of Physics**, 94.1, 1-9, 2020.
3. **Anju Dahiya**, K. K. Gupta and S. Somorendro Singh. "Equation of State of Magnetized PNJL Model in Finite Chemical Potential." **Physics of Particles and Nuclei**, 53, 2, 354-360, 2022.

### ➤ *Manuscripts Under Review*

4. **Anju Dahiya**, K. K. Gupta and S. Somorendro Singh. "2 + 1 Flavor Quarks Thermodynamics in a Magnetized QGP with Chemical Potential." (Under Review in **International Journal of Modern Physics A** )
5. **Anju Dahiya**, K. K. Gupta and S. Somorendro Singh. "Equation of State of 2+1 Flavor Quarks in Magnetized PNJL Model."(Under Review in **Pramana Journal of Physics** )
6. **Anju Dahiya**, K. K. Gupta and S. Somorendro Singh. "Thermodynamic Quantities of Magnetized PNJL Model in Non-zero Chemical Potential."(Under Review in **Brazilian Journal of Physics**)

### ➤ *Conferences/Workshop/School*

7. **Anju Dahiya** "SERC Preparatory School in Theoretical High Energy Physics." **SERC - Sponsored by Department of Science and Technology (SERC-2016)**, IIT Gandhinagar, India, 5<sup>th</sup> Sept- 1<sup>st</sup> Oct 2016.  
(**School**)
8. **Anju Dahiya** and S. Somorendro Singh. "Equation of State of Magnetized PNJL Model." **62<sup>nd</sup> DAE-BRNS Symposium on Nuclear Physics (DAE-BRNS-2017)**, Patiala, India, 20<sup>th</sup>-24<sup>th</sup> Dec 2017. (**Poster**)

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9. **Anju Dahiya**, and S. Somorendro Singh “Equation of State of a PNJL Model with Chemically Equilibrium QGP.” **International Conference Nuclear Particle and Accelerator Physics (ICNPAP-2018)**, Jharkhand, India, 23<sup>rd</sup>-26<sup>th</sup> Oct 2018. **(Poster)**
  10. **Anju Dahiya** and S. Somorendro Singh “Equation of State (EOS) with Thermal mass and Magnetized PNJL Model.” **23<sup>rd</sup> DAE-BRNS High Energy Physics Symposium (DAE-BRNS-2018)**, IIT Madras, India, 10<sup>th</sup>-14<sup>th</sup> Dec 2018. **(Poster)**
  11. **Anju Dahiya** and S. Somorendro Singh. **International Workshop on Frontiers in High Energy Physics (FHEP-2019)**, Hyderabad, India, 14<sup>th</sup>-17<sup>th</sup> Oct 2019. **(Workshop)**
  12. **Anju Dahiya**, and S. Somorendro Singh “Calculation of Thermodynamic Relations with a Modified and Magnetized Mass in PNJL Model of Cosmology.” **International Conference on Atomic, Molecular, Optical & Nano Physics with Applications (CAMNP-2019)**, Delhi, India, 18<sup>th</sup>-20<sup>th</sup> Dec 2019. **(Conference Proceedings Publish in Springer)**
  13. **Anju Dahiya**, and S. Somorendro Singh “2 + 1 Flavor Quarks Thermodynamics in a Magnetized QGP with Chemical Potential.” **10<sup>th</sup> International Conference on New Frontiers in Physics (ICNFP-2021)**, Crete, Greece, 23<sup>rd</sup> Aug -2<sup>nd</sup> Sept 2021. **(Poster)**
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## REFERENCES

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- **Prof. S. Somorendro Singh** **Email:** [sssingh@physics.du.ac.in](mailto:sssingh@physics.du.ac.in)  
Department of Physics and Astrophysics  
**Phone:** +919354235226  
University of Delhi  
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- **Prof. Manmohan Singh** **Email:** [drmanmohan.05@gmail.com](mailto:drmanmohan.05@gmail.com)  
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• **Associate Prof. Pradyumna Sethy**

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**PERSONAL DETAILS**

Mother's Name:	Mrs. Rajpati
Father's Name:	Mr. Attar Singh
Permanent Address:	Village Balkara, P.O. Mauri , District Charkhi Dadri , Haryana, 127306, India.
Present Address:	2592 3 <sup>rd</sup> Floor Shanti Niwas, Hudson Lane, GTB Nagar, Delhi, 110009, India
Date of Birth:	18/10/1990
Nationality:	Indian
Gender:	Female
Marital Status:	Single
Languages Known:	English, Hindi, and Haryanvi.

**Date: March 15, 2022**

**Place:** Delhi, India



**Anju**