



# Tasleem Ahmad Siddiqui

## Curriculum Vitae

### Education

- 2015–2020 **Ph.D (Awarded)** , Physics Department, Faculty of Science., Aligarh Muslim University, India.
- 2014–2015 **M.Phil. (Awarded)**, Physics Department, Faculty of Science., Aligarh Muslim University, India, %–79.00.
- 2010–2012 **M.Sc in Physics**, Aligarh Muslim University, India, %–63.04.
- 2007–2010 **BSc. (Honours) in Physics**, Aligarh Muslim University, India, %–65.33.
- 2007 **12th**, Kendriya Vidyalaya chopan, U.P, CBSE Board, %–78.60.
- 2005 **10th**, Kendriya Vidyalaya chopan, U.P, CBSE Board, %–80.04.

### Ph.D. Thesis

- Title Microscopic Description of Superheavy Nuclei.
- Supervisor Dr. Shakeb Ahmad
- Description In this thesis, I have worked with structural, surface, and decay properties of superheavy nuclei. I have searched for ground state shape, shape coexistence, binding energy, two-neutron separation energy, two-neutron shell gap, neutron pairing energy, rms radii, neutron skin thickness and ground-state neutron single-particle levels in the isotopic series of superheavy region. I have performed these by using constraint calculations assuming positive parity and axial-symmetry within the Relativistic-Hartree-Bogoliubov (RHB) formalism. The relativistic functionals used are the explicit density-dependent DD- ME2 and DD-PC1.

### Research Interests

Nuclear Structure Theory, Nuclear Reaction Experiments, Intermediate Energy Nuclear Physics.

### Awards

GATE 2014 qualified with All India Rank 905

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## Computer Skills

Softwares: Partial Knowledge of Matlab and good level knowledge of Latex  
Operating System: Windows and Linux  
Languages: Fortran and C++

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## Languages

Advance: English, Hindi, Urdu  
Basics: Arabic

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## Teaching

2016-2018: Laboratory Classes of B.Sc. (I and II year)  
2016: Fortran Lab of B.Sc. Final Year

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## List Of Publications in Research Journals

1. Search for neutron magicity in the isotopic series of  $Z=122, 128$  superheavy nuclei  
Tasleem Ahmad Siddiqui, Abdul Quddus, Shakeb Ahmad, and S. K. Patra  
J. Phys. G: Nucl. Part. Phys. 47 (2020) 115103.
2. Microscopic description of structural, surface, and decay properties of  $Z=124, 126$  superheavy nuclei  
Tasleem Ahmad Siddiqui, Abdul Quddus, Shakeb Ahmad, and S. K. Patra  
Nuclear Physics A 1006 (2021) 122080.
3. Relativistic Mean Field Study of SM isotopes with FTBCS approach  
Afaque Karim, Tasleem A. Siddiqui and Shakeb Ahmad  
Int. J. Recent Advances in Physics, 4(4), 49 (2015).
4. Electrodynamics of Pairing Phase Transition in Nuclei  
Afaque Karim, Tasleem A. Siddiqui and Shakeb Ahmad  
Int. Jour. of Pure and Appl. Phys., 11(2), 115 (2015).
5. A study of finite temperature effect in Pairing Correlations in Nuclei  
Afaque Karim, Tasleem A. Siddiqui and Shakeb Ahmad  
BZM Jour. of Sci. 1(2), 12 (2015).

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## List Of Papers in Conferences/Symposium

1. Electrodynamics of Pairing Phase Transition in Nuclei  
Afaque Karim, Shakeb Ahmad, and Tasleem A. Siddiqui  
Proceedings of the DAE Symp. On Nucl. Phys. 59 (2014)
2. A relativistic Self-Consistent Mean Field framework of Sm Isotopes

- Afaque Karim, Tasleem A. Siddiqui, and Shakeb Ahmad  
Proceedings of the DAE Symp. On Nucl. Phys. 60, 124 (2015).
3. Theoretical Prediction of  $\alpha$ -decay chains of 298,299120 superheavy nuclei  
Shakeb Ahmad, Afaque Karim, and Tasleem A. Siddiqui  
Proceedings of the DAE Symp. On Nucl. Phys. 60, 126 (2015).
4. Study of Some properties of Superheavy Nuclei With  $Z=124$   
Tasleem Ahmad Siddiqui, Shakeb Ahmad  
DAE-BRNS, National Symposium On Nuclear Physics Vol. 61, 122 (2016).
5. RHB calculations for Superheavy nuclei  $Z=126$  (Abstract only) Tasleem A. Siddiqui, Shakeb Ahmad and Afaque Karim  
International Conference in Nuclear Physics with Energetic Heavy Ion Beams Department of Physics, Punjab University, Chandigarh, 15-18, March, 2017.
6. Structural Properties Of Superheavy Isotopes  $Z=122$  with CDFT Approach  
Tasleem Ahmad Siddiqui, Shakeb Ahmad, and Afaque Karim  
Proceedings of the DAE Symp. on Nucl. Phys. 62 (2017).
7. Role of triaxiality in decay chain of  $^{298}120$   
Tasleem Ahmad Siddiqui, Shakeb Ahmad  
Proceedings of the DAE Symp. on Nucl. Phys. 63, 144 (2018).
8. A study of Strutinsky Shell Correction for  $Z = 122$ & $128$   
Tasleem Ahmad Siddiqui, Abdul Quddus, Shakeb Ahmad, S.K. Patra  
Proceedings of the DAE Symp. on Nucl. Phys. 64, 96 (2019).
9.  $\alpha$ -decay series of  $^{298}124$  isotope with CEDF  
Tasleem Ahmad Siddiqui, Abdul Quddus, Shakeb Ahmad  
Proceedings of the DAE Symp. on Nucl. Phys. 64, 98 (2019).
10. A Search for shell closure in isotopic series of  $Z = 124$ & $126$   
Abdul Quddus, Tasleem Ahmad Siddiqui, Shakeb Ahmad, Suresh Kumar Patra  
Proceedings of the DAE Symp. on Nucl. Phys. 64, 102 (2019).
11. Surface properties of  $Z=124$  isotopic series  
Tasleem Ahmad Siddiqui, Abdul Quddus, Shakeb Ahmad  
Proceedings of the DAE Symp. on Nucl. Phys. 64, 292 (2019).
12. Competition between  $\alpha$ -decay and spontaneous fission modes for the  $\alpha$ -decay chain isotopes of  $^{306}122$   
Abdul Quddus, Tasleem Ahmad Siddiqui, Shakeb Ahmad  
Proceedings of the DAE Symp. on Nucl. Phys. 64, 300 (2019).

## Participation in Workshop and Schools

1. CNT Lectrures on Selected Topics in Nuclear Theory 16-25 February, 2016 held at Variable Energy Cyclotron Centre, Kolkata India.
2. International Workshop on Frontier in Electroweak interactions of Leptons and Hadrons (EILH 2016) (November 2-6 2016) held at the Department of Physics, Aligarh Muslim University, Aligarh, India.
3. CNT Lectrures on Special Topics in Nuclear Theory March 01-11 2017, held at Variable Energy Cyclotron Centre, Kolkata India.
4. DST-SERB School on Role of Symmetries in Nuclear Physics 10<sup>th</sup>-23<sup>rd</sup> October, held at Amity University, Uttarpradesh, India.

## Personal Details

Date of Birth: 05 March 1990

Father's Name: Haseeb Ahmad Siddiqui

Sex: Male

Nationality: Indian

Address: Department of Physics, Aligarh Muslim University, Aligarh-202002, Uttar Pradesh, India

## References

Dr. Shakeb Ahmad  
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## Declaration

I do here by declare that above infomation are true to the best of my knowledge

Tasleem Ahmad Siddiqui  
AMU, Aligarh