

# CURRICULUM VITAE

Jugal Lahkar



E-mail: neetju77@gmail.com

Mobile: +91 7002770663

## **Permanent Address :**

Vill Dhopatari  
P.O. Changsari  
P.S. Changsari  
PIN 781101, Kamrup,  
Assam, India

## **Educational Degrees :**

<b>PhD</b>	Gauhati University, Ghy-14, Assam, India, 2020 Thesis title: A Study of Heavy Flavour Mesons with and without compact Extra-dimension Supervisor: Prof. Dilip Kumar Choudhury
<b>MSc</b>	Gauhati University, Ghy-14, Assam, India, 2012 <b>1st class 1st(96.1%)</b>
<b>BSc</b>	Pub-Kamrup College(Gauhati University), 2010 <b>1st class 2nd(80.5%)</b>
<b>NET</b>	CSIR-JRF(2012 Dec) <b>AIR 0071</b>
<b>Other</b>	IIT JAM(2010) <b>AIR 440</b>

## **Fields of Research Interest**

Non-Perturbative QCD and phenomenology

Extra-dimension

Particle Physics

## **Present Position**

*Guest Faculty*, Dept. of Physics, Pragjyotish College, Guwahati, Assam

## **Professional Experience**

*Assistant Professor* (ad hoc), Dept. of Physics, Tezpur University, Napam, Tezpur, Assam  
(from 2018-2020)

*Guest Faculty*, Dept. of Physics, Pub-Kamrup College, Kamrup, Assam (August 2012-  
August 2013)

## **Experience in Research**

Research in Dept. of Physics, Gauhati University, Assam (8 years)

Research in Dept. of Physics, Pragjyotish College, Guwahati, Assam

## **Membership:**

1. Publicity Secretary of Physics academy of North-East, PANE
2. Life member of Assam Physical society
3. Member of Pragjyotish college Physical Society
4. Life member of Indian Association of Physics teachers (IAPT)

## List of Publications

1. Jugal Lahkar, D.K. Choudhury, S. Roy and N.S. Bordoloi, "A model of mesons in finite extra-dimension", Can.J. of Phy., 96: 524–528 (2018) ., Impact Factor: 1.032
2. Jugal Lahkar and D.K. Choudhury, "Confinement effect and masses of light heavy mesons in finite extra-dimension, Ind. J. of Phy., <https://doi.org/10.1007/s12648-018-1300-7> ., Impact Factor: 1.407
3. Jugal Lahkar, D.K. Choudhury, and B.J. Hazarika "An Improved Analysis of Masses and Decay constants of heavy flavour mesons within Variational approach ", Commun. theo. Phy., 71 (2019) 49–55 ., Impact Factor: 2.19
4. Jugal Lahkar, R. Hoque and D.K. Choudhury, "Masses of Heavy-Light mesons with two loop static potential in a Variational approach ", Mod. Phy. Lett. A, Vol. 34 (2019) 1950106, DOI: 10.1142/S0217732319501062, Impact Factor: 2.57
5. Jugal Lahkar and D.K. Choudhury, "Compact extra dimension and mass of mesons in a QCD potential model ", National Conference on CICAHEP, Dibrugarh (2015), 01, 175-179.
6. Jugal Lahkar, D.K. Choudhury and B.J. Hazarika, "Mass and decay constants of heavy flavour mesons with variationally improved perturbation theory", book chapter, "Advances in nuclear physics and condensed matter", Editor: Dr. Lakshmi K. Singh, EBS publishers, ISBN: 978 93 88881 203, 2020
7. Jugal Lahkar and D.K. Choudhury, "Bound on finite extra-dimension from the masses of light heavy mesons in a QCD potential model", Journal of applied and fundamental sciences, vol. 6(1), ISSN: 2395-5562, June 2020
8. Dhanjit Talukdar and Jugal Lahkar, "Improved potential approach and Masses of heavy flavour mesons ", accepted for publication in Journal of applied and fundamental sciences (Springer), ISSN: 2395- 5562, June 2020

## Work Under Review

Masses of Heavy Flavour mesons in a space with one finite extra-dimension (Under review EPJC)

Masses and Decay constants of Heavy Flavour mesons in perturbative approach

(Submitted to Can J of Phy)

### **Papers presented at Conferences(National/International:)**

- (1).Presented a poster titled "Finite extra-dimension and meson masses in a QCD potential model" in the "IXth Naional Conference of Physics Academy of North-East(PANE)" held on 18-20 december,2014 at Dept.of Physics,North Eastern Regional Institute of Science and Technology.
- (2). Participated in a discussion meeting on "Electroweak Symmetry Breaking (EWSB) and Status of Flavour Physics" during February 20-22, 2014 at IIT Guwahati, Assam.
- (3) Participated in the "Introductory Workshop on Relativistic Astrophysics" held at Gauhati University in collaboration with Inter University Centre for Astronomy and Astrophysics (IUCAA), Pune during August 21-23, 2014.
- (4).Presented a paper titled "Compact extra-dimension and meson masses in a QCD potential model" in the "National Conference on Current Issues in Cosmology,Astrophysics and High Energy Physics(CICAHEP)" held on november2-5,2015 at Dept.of Physics,Dibrugarh University,Assam,India.
- (5).Presented a paper titled "Wave-function of mesons in finite extra-dimension and varia-tion of their masses" in the "National Seminar on Science and Technology for sustainable development(61st Annual Technical Session of Assam Science society,2016)" held on january23,2016 at Goalpara College,Assam,India.
- (6)Presented a poster titled "On effective QCD inspired potential in finite extra-dimension and masses of heavy flavoured mesons" in the "Xth Biennial Naional Conference of Physics Academy of North-East(PANE)" held on 10-12 december,2016 at Dept.of Physics,St.Anthony's college,Shillong793001,Meghalaya,India.
- (7).Presented a paper titled "Masses and Decay constants of heavy light mesons in a varia- tional approach" in the "XIth Biennial Naional Conference of Physics Academy of North- East(PANE)" held on November21-23,2018 at Dept.of Physics,Assam University,Diphu Campus,Assam,India.
- (8).Presented a paper titled "Mass and Decay constant of heavy flavour mesons with Variationally Improved Perturbation Theory" in the "Naional Conference on Materials,Condensed matter and theoretical physics" held on December20-21,2018 at Dept.of Physics,ADP College,Nagaon,Assam,India.
- (9)Presented a poster titled "Improved potential approach and Masses of heavy flavour mesons" in the Springer International Conference on Trends in Modern physics2021,February26-27,at Assam Don Bosco University,Assam,India.

### **Conference/School/Meeting/Workshop attended:**

1. Participated in a discussion meeting on "Electroweak symmetry Breaking(EWSB) and status of Flavour Physics",during February 20-22,2014,at IIT Guwahati,Assam.
2. Participated in "Introductory Workshop on Relativistic Astrophysics", during August 21- 23,2014,at Department of Physics,Gauhati University,Guwahati,781014,Assam.

3. Participated in Inter-University Accelerator Center(IUAC)acquaintance Programme on "Accelerator based multi-disciplinary scientific research",Department of Physics,G.U.,Guwahati,781014,Assam .

**Personal**

Date of birth: March1,1988

Place of birth: Dhopatari,Assam, India

Spouse: *Chandana*

Son: *Shriyan*