



## Dr. Saibal Mitra

M.Sc, B.Ed, Ph.D  
Assistant Professor  
Department of Physics  
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### AREAS OF INTEREST/SPECIALISATION

- **Quantum Optics**
- **Squeezed states of light**
- **Photonics**
- **Solid state Physics**

### ACADEMIC ACHIEVEMENTS

- **B.Sc** (1<sup>st</sup> Class) and **M.Sc** (1<sup>st</sup> Class) in Physics from the University of Burdwan in **2006** and **2008** respectively
- Qualified **GATE** with 96.95 percentile (All India rank 158) in Physics in **2009**
- Qualified **Joint CSIR-UGC NET (National Eligibility Test)** for Junior Research Fellowship (All India rank 171) in Physical Science in **June 2009**
- Awarded **Ph.D** degree on 13<sup>th</sup> April, 2017

### RESEARCH EXPERIENCE

From	To	Name and Address of Company / Organization	Position held
2013	2017	The University of Burdwan	Part time Researcher

### ACADEMIC EXPERIENCE

- Assistant Professor in Physics, Department of Physics, Ramananda College, Bankura from 22.07.2020 to till date
- Assistant Professor in Physics, Department of Physics, Raj Narain College, Hajipur, Bihar from 04.10.2017 to 28.02.2018
- Assistant Teacher in Physics, Bandipur High School (H.S.) , Hooghly from 25.09.2008 to 21.07.2020

## **PUBLICATIONS**

### **(List of Journals/Proceedings/Chapter in Books)**

#### **Year 2019**

**S. Mitra** and S. Mukhopadhyay, “*Analytical approach of reduction in bit error rate using amplitude-squeezed states of light*”, **Journal of Optics (Springer)**, **48(2)**, 220-223 (2019).

#### **Year 2015**

**S. Mitra** and S. Mukhopadhyay, “*An all optical scheme for implementing a NAND logic by dibit representation of squeezed state of light*”, **Journal of nonlinear optical physics and materials (World Scientific)**, **24(4)**, 1550048(2015).

**S. Mitra** and S. Mukhopadhyay, “*A new proposal of modulation of amplitude squeezed state of light by intensity variation of a low frequency coherent message signal*”, **Chinese Optics Letters (OSA)** **13(1)**, 012702(2015).

#### **Year 2014**

**S. Mitra** and S. Mukhopadhyay, “*Analytical investigation on interactions among squeezed vacuum and coherent state, coherent vacuum and squeezed state, and among phase squeezed and amplitude squeezed states of light*”, **Optik – International Journal for Light and Electron Optics(Elsevier)** **125(20)**, 4497-4500 (2014).

#### **Year 2013**

**S. Mitra** and S. Mukhopadhyay, “*An analytical investigation on the interactions between a squeezed and a coherent optical signal*”, **Optik – International Journal for Light and Electron Optics (Elsevier)** **124(20)**, 4586-4589 (2013).

## **CONFERENCE PAPERS**

#### **Year 2013**

**S. Mitra** and S. Mukhopadhyay, “*An analytical study to find out the photon number fluctuation of two interacted squeezed state of light signals to generate a highly noise reduced digital signal for computation and communication of data*” **Second International Conference on Computing and Systems-2013**, September 21-22,2013 organized by Department of Computer Science, The University of Burdwan, West Bengal (Full paper published in the proceedings).

#### **Year 2014**

**S. Mitra** and S. Mukhopadhyay, “*A new proposal of modulation of amplitude squeezed state of light by the variation of low frequency coherent message signal*” **International Conference on optics and Optoelectronics -2014**, March 05-08, 2014 ( XXXVIII

**Symposium of Optical Society of India) at Instruments Research and Development Establishment, Dehradun, Uttarakhand (Full paper published in the proceedings).**

## **PRESENTATIONS**

### **Year 2013**

**Presented paper in second International Conference on Computing and Systems-2013, September 21-22, 2013 organized by Department of Computer Science, The University of Burdwan, West Bengal.**

### **Year 2014**

**Presented paper in International Conference on optics and Optoelectronics -2014, March 05-08, 2014 ( XXXVIII Symposium of Optical Society of India) at Instruments Research and Development Establishment, Dehradun, Uttarakhand.**

## **PERSONAL DETAILS IN BRIEF**

**Date of Birth** : 02.05.1986  
**Marital Status** : Married  
**Nationality** : Indian  
**Current Designation** : Assistant Professor  
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