

# **SwarnaJayanti Fellowships Scheme- 2018-19**

**Shortlisted Candidates for Presentation before Subject Area Committee  
in**

**Physical Sciences**

**Date of Presentation/ Meeting: Friday, 18<sup>th</sup> October, 2019**

**Time: 9.00 a.m.**

**Venue: Indian National Science Academy  
Bahadur Shah Zafar Marg  
(Near ITO Metro Station)  
New Delhi-110002**

<b>S.No</b>	<b>Project Title / Temporary Reference No.</b>	<b>Applicant Name &amp; Address</b>
1.	Using Machine Learning as Neutrino Event Classifier  (DST/SJF/PS/2019/1)	<b>Dr. Satyajit Jena</b> Deptt. of Physics, Indian Institute of Science Education and Research Mohali, Knowledge City, Sector 81 SAS Nagar, PO Manauli -140306
2.	Partially Tunable Single Photon Emitters based on 2D materials Quantum Dots Coupled to Photonics Nanowires at room temperature and its Applications (DST/SJF/PS/2019/7)	<b>Dr. Rajan Jha</b> School of Basic Sciences Indian Institute of Technology Bhubaneswar, Argul-752050
3.	Quantum Dynamics, Correlation Functions and Holography (DST/SJF/PS/2019/13)	<b>Dr. Arnab Kundu</b> Theory Division, Saha Institute of Nuclear Physics, Block AF, Sector 1, Bidhannagar, Kolkata -700064
4.	Predicting transport, optical and plasmonic properties of topological materials - from ab- initio to low energy models. (DST/SJF/PS/2019/14)	<b>Prof. Amit Agarwal</b> Deptt. of Physics Indian Institute of Technology Kanpur, Kanpur-208016
5.	Massive Neutrinos - A Window for Physics Beyond the Standard Model (DST/SJF/PS/2019/15)	<b>Dr. Sanjib Kumar Agarwalla</b> Institute of Physics, Sachivalaya Marg, Bhubaneswar-751005
6.	Probing extreme gravity and astrophysics using gravitational- wave observations  (DST/SJF/PS/2019/16)	<b>Prof. Parameswaran Ajith</b> International Center for Theoretical Sciences, TIFR, Survey No. 151, Shivakote, Hesaraghatta Hobli, Bengaluru- 560089

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7.	Effects of inclusions on the dynamical and rheological properties of disordered systems and understanding plasticity at Nano scale (DST/SJF/PS/2019/20)	<b>Dr. Smarajit Karmakar</b> Tata Institute of Fundamental Research- Hyderabad, 36/P, Gopanpally Village, Serilingampally, Ranga Reddy District, Hyderabad-500107
8.	One symmetry to rule them all (DST/SJF/PS/2019/24)	<b>Dr. Arjun Bagchi</b> Deptt. of Physics, Indian Institute of Technology Kanpur, Kanpur-208016
9.	Intrinsic noise and collective behavior in biological systems. (DST/SJF/PS/2019/26)	<b>Dr. Vishwesh Guttal</b> Centre for Ecological Sciences, Indian Institute of Science, Bengaluru -560012
10.	Generating and quantifying genuine randomness in the lab using qubit and higher dimensional systems (DST/SJF/PS/2019/30)	<b>Prof. Urbasi Sinha</b> Raman Research Institute, C. V. Raman Avenue, Sadashivanagar, Bengaluru-560080
11.	Exploring the emergent topological properties of graphene hybrids (DST/SJF/PS/2019/32)	<b>Dr. Anindya Das</b> Deptt. of Physics Indian Institute of Science, Bengaluru -560012
12.	Studies on the spectral and temporal modification of spontaneous emission of color centers using photonic structures (DST/SJF/PS/2019/35)	<b>Dr. Rajesh V Nair</b> Deptt. of Physics Indian Institute of Technology Ropar, Nangal Road, Rupnagar, Ropar -140001
13.	Imaging convection in the interior of the Sun (DST/SJF/PS/2019/41)	<b>Prof. Shravan Hanasoge</b> Astronomy and Astrophysics, Tata Institute of Fundamental Research, 1, Homi Bhabha Road, Colaba, Mumbai -400005
14.	Inducing novel optical property in silk with nanometer precision by femtosecond laser pulses and Applications (DST/SJF/PS/2019/44)	<b>Dr. Kamal P Singh</b> Deptt. of Physical Sciences Indian Institute of Science Education and Research Mohali, Knowledge City, Sector 81 SAS Nagar, PO Manauli -140306