









TIFR BEST THESIS AWARDS 2020-21

These are annual awards, given by the TIFR Alumni Association (TAA), for the Best Theses awarded by TIFR between April 2020 & July 2021

The names are selected by a committee chosen for each subject.

TAA - Geeta Udgaonkar Award			
	Dr. Rahul Chajwa	<p>Citation: The TAA Best Thesis Award in Physics 2021 is presented to Rahul Chajwa for his comprehensive work on Stokesian sedimentation including experimental observation of rare new singularities, and theoretical (analytical and numerical) discovery of emergent Hamiltonians, Keplerian orbits, and growing perturbations in linearly stable systems</p>	Prof. Prof Rama Govindarajan Prof. Narayanan Menon Prof. Sriram Ramaswamy
		<p>Thesis Title : Driven Stokesian suspensions : particle anisotropy, effective inertia and transient growth</p>	
<i>Honourable Mention</i>			
	Dr. Sandeep Kumar Acharya	<p>Citation: The TAA Best Thesis Award in Physics 2021 (Special Mention) is presented to Sandeep Kumar Acharya for his research resulting in deeper understanding of the effects of beyond standard model physics in the early Universe on cosmological observables and theoretical predictions of new types of CMB spectral distortions</p>	Prof. Rishi Khatri
		<p>Thesis Title : Cosmological probe of electromagnetic and neutrino energy injection at high redshifts</p>	
TAA – Zita Lobo Memorial Award			
	Dr. Riddhi Deshmukh	<p>Citation: The Best Thesis Award in Biology 2021 is Presented to Dr. Riddhi Deshmukh for integrating ideas and methods from evolutionary and developmental genetics to understand how natural selection and molecular mechanisms produce insect adaptations</p>	Prof. Krushnamegh Kunte
		<p>Thesis Title: Genetic and developmental bases of wing patterning in Papilio swallowtail butterflies</p>	

TAA – Harish Chandra Memorial Award			
	Dr. Suman Kumar Sahoo	Citation: The Best Thesis Award in Mathematics 2021 is Presented to Mr Suman Kumar Sahoo for his work on (1) inversion and range characterization of momentum ray transforms, (2) microlocal inversion of a restricted transverse ray transform, and (3) stability estimates for the recovery of first and zeroth order perturbations of a linear parabolic PDE in a bounded domain from partial boundary data."	Prof. Venky Krishnan
		Thesis Title: Inverse Problems related to Integral Geometry and a Parabolic Partial Differential Equation	
TAA – Chemistry Award			
	Dr. Ayan Maity	Citation: The TAA Best Thesis Award in Chemical Sciences 2021 is presented to Ayan Maity for his research which addressed fundamental questions related to dendritic fibrous nanomaterials (DFNSs) and his contributions to developing synthetic methods that produced several DFNS-inspired materials and catalysts.	Prof. Vivek Polshettiwar
		Thesis Title: Dendritic Fibrous Nanomaterials (DFNMs): Synthesis, Formation Mechanism and Catalysis	
Honourable Mention			
	Dr. Sayani Das	Citation: The TAA Best Thesis Award in Chemical Sciences 2021 (Honourable Mention) is presented to Sayani Das for the development of novel chemosensors that are used for detecting metal ions in living cells and multicellular organisms.	Prof. Ankona Datta
		Thesis Title: Design and Development of Optical Probes for Tracking Essential and Toxic Metal Ions	
	Dr. Avijit Maiti	Citation: The TAA Best Thesis Award in Chemical Sciences 2021 (Honourable Mention) is presented to Avijit Maiti for the development of a rationally designed new class of carbene-based Kekulé and non-Kekulé diradicals.	Prof. Anukul Jana
		Thesis Title: Synthesis and Characterization of Rationally Designed Carbene-Based Kekulé and non-Kekulé Diradicals	

TAA – Sasken Award			
	Dr. Suhail Sherif	Citation: The TAA Best Thesis Award in Computer & System Sciences 2021 is presented to Suhail Sherif for providing a simple counter-example to the Log-Approximate-Rank Conjecture in communication complexity, and for showing that the classical Gradient Descent algorithm is unlikely to be sped up on a quantum computer.	Prof. Arkadev Chattopadhyay
		Thesis Title: Communication Complexity and Quantum Optimization Lower Bounds via Query Complexity	