## THE OXFORD PHYSICS SUMMIT 2024 IGNITES NATIONAL

## **COLLABORATION IN PHYSICS!**



Aaditya Deshmukh,
President of the Oxford University
Physics Society, writes:



The Oxford Physics Summit 2024 marked a major milestone in the world of physics collaboration. Hosted by the Oxford University Physics Society, this action-packed weekend brought together physics enthusiasts from prestigious universities across the country. United by a common zeal for physics, individuals delved into the mysteries of the Universe, forged lasting connections, and showcased the collective spirit that define our field.

The event kicked off with a warm welcome and networking opportunity as attendees arrived early on a fine Saturday morning, setting the stage with energetic discussions for the immersive weekend that lay ahead. The camaraderie and vibrant atmosphere was a wonder to behold. I was privileged to introduce Professor Alexander Lvovsky as the first keynote speaker, providing captivating insights and thought-provoking revelations into the realm of quantum mysteries and paradoxes. This talk truly set the tone for a weekend of exploration into the frontiers of physics.

The excitement continued as participants embarked upon a treasure hunt through the streets of Oxford with a physics twist. Armed with clues and keen intellects, the newly formed teams navigated their way through the city, unravelling hidden secrets and discovering famous landmarks. A particular highlight was the search for key physics treasures such as Einstein's blackboard! The interactive adventure fostered creativity and teamwork, adding an element of fun to the Summit's bustling schedule. This was followed by a grand Oxonian dinner set within the stunning dining hall of Lady Margaret Hall College. Against a majestic backdrop, conversations flowed, and friendships were forged, providing a fitting conclusion to the first day.

Sunday dawned with an array of diverse and enriching workshops, crafted to the palate of physics fanatics. Led by acclaimed experts in their respective fields, each offered a unique perspective with hands-on opportunities to experience science like never before.

Professor Alexander Lvovsky developed further on his opening talk with a practical opportunity to explore the cutting edge of quantum computing. Using IBM's powerful online software, participants were able to investigate strange quantum properties firsthand. Meanwhile, Dr Chiara Spiniello led the "AstroLab: Is our Universe Flat?" workshop, guiding participants through the work of a modern-day astrophysicist. From utilising python programming models and analysing real-life astrophysical data to answering fundamental questions about the nature of our cosmos, it was an awe-inspiring end-to-end quest. In the final workshop, Dr Ali Yildirim showcased a fascinating field, delving deep into the intricacies of the human mind. The introduction into AI-enhanced neuroscience was eye-opening, particularly with the feature of live demonstrations to see the inner workings of a physicist's brain!

As excitement peaked, the pinnacle of the weekend was undoubtedly the fascinating final talk, delivered by none other than the esteemed 2020 physics Nobel laureate. It was an honour to share the stage with Sir Roger Penrose, the second keynote speaker for the Oxford Physics Summit 2024, sharing his enlightening perspectives on the collapse of the quantum wavefunction. The riveting interest of over 300 enthusiastic individuals resonated throughout the packed lecture theatre. With his unparalleled brilliance, Sir Roger Penrose embarked on a journey into the depths of reality, delicately weaving a tapestry of thought that transcended the boundaries of conventional understanding.

As the closing remarks echoed through the crowd, a sense of awe and inspiration lingered through the audience, a profound conclusion to the grand success of a momentous Oxford Physics Summit 2024. This inaugural event showcases our collaborative strength, the immense power of physicists united by a strong passion. Over the innumerable interactions over the course of the weekend, there were invigorating conversations, lasting connections, and the creation of a repertoire of memories to be cherished for times to come.

I am filled with gratitude towards everyone who contributed to making the Oxford Physics Summit 2024 a resounding triumph. I want to extend a heartfelt thanks to the speakers, workshop hosts, university representatives, the organising committee, and of course, to each and every one of the attendees – this event would not have been possible without you. My sincere thanks also to the University of Oxford's Department of Physics, Oxford Mathematics Institute, Lady Margaret Hall college, and the Institute of Physics, for their unwavering support towards this remarkable initiative.

I am honoured by the experiences I have had as the host of the Oxford Physics Summit 2024 and can't wait to see what lies ahead for the future of national physics collaboration!



Welcome



Sir Roger Penrose's Closing Talk



Prof Alexander Lvovsky's Opening Talk



**Introducing Sir Roger Penrose** 



Representatives From Attending Universities



Quantum Workshop - Prof Alexander Lvovsky



AI-Enhanced Neuroscience Workshop - Dr Ali Yildirim



Astrophysics Workshop - Dr Chiara Spiniello



**Organising Committee and University Representatives** 



Organising Committee, University Representatives, & Volunteers with Sir Roger Penrose



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