INTERNATIONAL YEAR OF
Quantum Science
and Technology

2025
QUANTUM@UNAM
100 AÑOS DE LA REVOLUCIÓN CUÁNTICA
QUE CAMBIÓ NUESTRAS VIDAS

CONFERENCE ON QUANTUM SCIENCE AND TECHNOLOGY

OCTOBER 20-24, 2025

Auditorio Alejandra Jáidar | Instituto de Física, UNAM

TOPICS

- Foundations of Quantum Mechanics
- Quantum Many Body
- Quantum Optics
- Quantum Field Theory
- Quantum Open Systems
- Quantum Technologies and Applications

Centro de Ciencias de la Complejidad
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International Year of Quantum Science and Technology

The year 2025 has been designated as the **International Year of Quantum Science and Technology**, a global initiative to highlight the profound impact of quantum discoveries on modern science, technology, and society. This celebration acknowledges both the centennial of the quantum revolution and the extraordinary potential that quantum research holds for the future.

2025
QUANTUM@UNAM

The **Conference on Quantum Science and Technology** is organized as part of these worldwide commemorations. Our aim is to celebrate this occasion with a program that not only showcases the forefront of quantum mechanics research, but also fosters dialogue across disciplines and communities.

In particular, the conference is designed to:

- Serve our students and young researchers, offering them exposure to leading voices in the field.
- Strengthen the local and national quantum science community, creating new opportunities for collaboration.
- Bring together internationally recognized researchers in quantum mechanics and related areas to disseminate their perspectives on the diverse fields where quantum science is relevant — from foundations to applications.

By aligning our conference with the International Year of Quantum Science and Technology, we reaffirm our commitment to building bridges between education, research, and society, ensuring that the legacy and promise of the quantum revolution are shared widely and meaningfully.

Acknowledgments

The Organizing Committee of the **Conference on Quantum Science and Technology** expresses its deepest gratitude to the institutions and individuals whose generous support made this event possible.

We gratefully acknowledge the financial and institutional support provided by the Programa de Apoyo a Proyectos de Investigación e Innovación Tecnológica PAPIIT-IN117623, PAPIIT-IIA104625, and PAPIIT-IA101325, the Programa de Impulso a la Investigación en el Instituto de Física (PIIF-25), and Ciencia de Frontera SECIHTI: CBF2023-2024-2888. Their sustained commitment to fostering research excellence and collaboration in quantum science has been fundamental to the realization of this meeting.

We extend our sincere thanks to Dra. Mercedes Rodríguez Villafuerte, Director of the Instituto de Física, and to the Secretaría Académica, Dr. Saúl Ramos, for their coordination and continued institutional support for the organization of this event.

Our deepest appreciation goes to the Unidad de Comunicación and Unidad de Cómputo of the Instituto de Física Evelyn Acosta, Daniel Rosales, Jorge Pacheco, Gabriela Morales, Fabiola Pérez, and Eric Vázquez for their work in the design, logistics, and communication strategy that brought the conference to life. Their knowledge and enthusiasm have been key to every aspect of this celebration of science. We would also like to thank Rogelio and Luz for all of the support regarding the logistics of the funding of our event.

We also wish to thank all our invited speakers and participants for their enthusiasm, insight, and engagement, as well as the volunteers and technical staff who ensured the smooth development of the sessions.

Finally, we recognize the collective effort of the organizing institutions the Instituto de Física (IFUNAM), the Instituto de Ciencias Físicas (ICF-UNAM), and the Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas (IIMAS-UNAM).

Through this conference, we celebrate not only a century of quantum discovery but also the vibrant and collaborative community that continues to explore the frontiers of quantum physics and technology.

Speakers

- **Yuri Bonder**
  Instituto de Ciencias Nucleares, UNAM
- **Luis de la Peña**
  Instituto de Física, UNAM
- **Ana María Cetto**
  Instituto de Física, UNAM
- **Esben Christensen**
  University of Copenhagen
- **Luis De La Peña**
  Instituto de Física, UNAM
- **Sergio de Régules**
  Dirección Gral. de Divulgación de la Ciencia
- **Francisco Domínguez**
  CICESE
- **Mareny Fernández**
  Institut Courtois
- **Daniel Finkelstein**
  Instituto de Química, UNAM
- **Anton Frisk Kockum**
  Chalmers University of Technology
- **Diego Iniesta**
  IIMAS, UNAM
- **Rocío Jáuregui**
  Instituto de Física, UNAM
- **Luis Peña Ardila**
  University of Trieste
- **Peter Pickl**
  University of Tübingen
- **Hugo Ribeiro**
  UMass Lowell
- **Víctor Romero**
  Instituto de Física, UNAM
- **Vanderlei S. Bagnato**
  Texas A&M University
- **Luis Santos**
  Leibniz Universität Hannover
- **Carlos Silva**
  Institut Courtois
- **Stephen B. Sontz**
  Centro de Investigación en Matemáticas
- **Thomas Stegman**
  Instituto de Ciencias Físicas
- **Joel Yuen-Zhou**
  University of California San Diego
- **Manu Paranjape**
  U Montreal

Location

Instituto de Física, UNAM

Mexico City, Mexico

Instituto de Física, Universidad Nacional Autónoma de México (UNAM).

- Address: Circuito de la Investigación Científica, Ciudad Universitaria, Coyoacán, Mexico City.
- How to get there: Easily accessible by Metro (Universidad Station) and public transport.
- Map

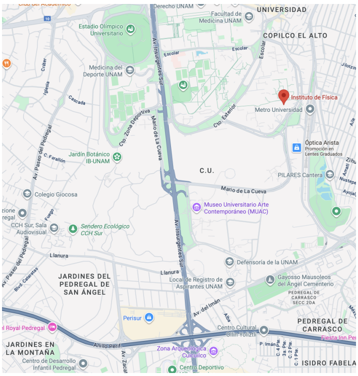

Figure 1: figure
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Program

Conference on Quantum Science and Technology

October 20–24, 2025

Auditorio Alejandra Jáidar | Instituto de Física, UNAM

2025 QUANTUM@UNAM

Time	Monday 20/10	Tuesday 21/10	Wednesday 22/10	Thursday 23/10
09:30–10:00	**Opening:** Luis de la Peña			
10:00–10:50	Ana María Cetto	Luis Peña Ardila	Esben Rohan	Hugo Ribeiro
10:50–11:40	Rocío Jáuregui	Anton Frisk Kockum	Valentin Walther	Joel Yuen
11:40–12:10	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK
12:10–13:00	Mareny Fernández	Vanderlei Bagnato	Peter Pickl	Diego Iniesta Miranda
13:00–15:30	LUNCH	**Poster session & LUNCH**	LUNCH	LUNCH
15:30–16:20	Daniel Finkelstein	Luis Santos	Francisco Domínguez	Stephen B. Sontz
16:20–17:10	Thomas Stegman	Víctor Romero	Manu Paranjape	Sergio de Régules
17:10–18:00	Yuri Bonder	Carlos Silva		

At 09:30 on Monday, October 20, our conference will be formally inaugurated by ***Dr. Mercedes Rodríguez Villafuerte****, Director of the Institute of Physics, UNAM.*

Abstracts (Program Order)

Monday, 20/10

We celebrate the centenary of quantum mechanics with remarkable achievements and tasks still to be accomplished

Ana María Cetto

Institute of Physics, National Autonomous University of Mexico

As the end of 2025 approaches, it is a good time to remind ourselves what motivated the IYQ initiative, to begin to take stock, and to reflect on what it has meant for quantum science and technology. Over the next few days, we will hear from specialists reporting on important advances in their respective fields. In the second part of my talk, I will therefore refer to the fundamentals of quantum physics, which is my own field of research. The IYQ has helped raise awareness of the confusing interpretative landscape that still prevails a century after the birth of quantum formalism. This suggests the need for significant research efforts to contribute to a better physical understanding of quantum phenomena. To conclude, I will present promising results that allow us to move forward in this direction.

LanMac an Academic Space for the Development of Quantum Science and Technologies in Mexico

Rocío Jáuregui
Instituto de Física, UNAM

The National Laboratory of Quantum Matter: Ultracold Matter and Quantum Information (LanMac) was created ten years ago with the aim of promoting the development of theoretical, experimental, and technological research based on the resources offered by Quantum Dynamics. It is comprised of nine laboratories and multiple theoretical groups. Financial resources were initially provided by the National Council of Science and Technology, with a proportional investment from the various participating universities or research centers. This talk will briefly summarize the ongoing projects and the ultimate objectives of each laboratory. Emphasis will be placed on both cutting-edge research and the relevance of LanMac for the training of human resources and the dissemination of fundamental topics related to the development of Quantum Science and Technologies.

Probing Quantum Dynamics with 2D Infrared Spectroscopy

Mareny Fernandez
Institut Courtois

Two-dimensional infrared (2DIR) spectroscopy has emerged as a powerful tool for investigating ultrafast quantum dynamics in molecular systems. By resolving correlations between vibrational modes across both frequency and time domains, 2D IR provides unique insight into coherence, anharmonicity, and energy transfer processes, all of which are central to understanding quantum behavior. In this talk, I will highlight how 2DIR spectroscopy enables the real-time observation of vibrational coherences from some examples, directly probe off-diagonal spectral features that are signatures of quantum mechanical couplings, dephasing, and entanglement between vibrational states. Understanding how to manage pulse shaping, phase cycling, and multidimensional pulse sequences that enhance the sensitivity of 2DIR.

Structural Fingerprints of TDBC–Ag Plexcitons from NMR, Raman, and DFT

Daniel Finkelstein
Instituto de Química, UNAM

Plexcitons, hybrid states emerging from strong coupling between molecular excitons and plasmonic modes, promise novel routes for energy transport and photonic control. Yet, their performance hinges on the molecular geometry at the metal interface, which remains poorly understood. We present a combined NMR, resonance and THz-Raman, and DFT study of TDBC J-aggregates and their coupling to silver nanocrystals. Our results reveal that in water, TDBC forms staircase-like aggregates with alternating sulfonate side chains, while adsorption to Ag surfaces preserves aggregate fingerprints but introduces pronounced structural disorder. Low-frequency vibrational modes emerge as sensitive markers of aggregation and interfacial binding, with enhancement factors up to 40 for some modes. These structural insights provide spectroscopic handles to diagnose order and disorder in plexcitons, laying the groundwork for rational design of robust polaritonic materials and subsequent photophysics. .

Controlling the Current Flow in 2D Quantum Materials

Thomas Stegman

Instituto de Ciencias Físicas, UNAM

In this talk, we explore various strategies to manipulate and control the electronic transport in 2D quantum materials. We show that the current flow in graphene can be guided on atomically-thin current pathways by the engineering of Kekulé distortions. A grain boundary in these distortions separates the system into topologically distinct regions and induces a ballistic domain-wall state. The state is independent of the orientation of the grain boundary with respect to the graphene lattice and permits guiding the current on arbitrary paths [1]. When considering a graphene bilayer, we demonstrate that it is possible to steer the current by twisting one layer relative to the other. The observed steering gives rise to a non-local Hall resistance and can be explained by the trigonal shape of the energy bands due to the Moiré interference pattern [2]. Additionally, we discuss the emergence of anomalous edge states in this system, which open new possibilities for transport control [3].

References

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[2] Sánchez-Sánchez, et al., J. Phys. Mater. 5, 024003 (2022).
[3] Sánchez-Sánchez, et al., Phys. Rev. B 110, 205432 (2024).

Bell's Nonlocality and Gravitation

Yuri Bonder
Instituto de Ciencias Nucleares, UNAM

One of the most important challenges in physics is to formulate a theory of gravity that is compatible with quantum mechanics. Inspired by Bell inequalities and the experiments that test them, we explore the possibility of incorporating nonlocal effects into gravitation. To this end, we propose a new geometric object within the framework of semiclassical gravity. This construction leads to a model that, under suitable conditions, reduces to General Relativity. Finally, we apply the model to laboratory experiments in which the source of gravity is a particle in superposition.

Tuesday, 21/10

Bose and Fermi Polarons in Atom — Ion Hybrid Systems

Luis Peña Ardila

University of Trieste

Charged quasiparticles, dressed by the low-energy excitations of an electron gas, constitute one of the fundamental pillars for understanding quantum many-body effects in various materials. Quantum simulations of quasiparticles arising from atom–ion hybrid systems may provide new insights into unexplored regimes of solid-state physics.In this talk, we focus on ionic polarons, which emerge when charged dopants interact with a Bose–Einstein condensate [1—3] or with a polarized Fermi gas [3]. We demonstrate that even in a comparatively simple setup—charged impurities immersed in a weakly interacting bosonic medium or in an ideal Fermi gas with a tunable atom–ion scattering length—the competition of length scales produces qualitatively different outcomes. In the bosonic case, a highly correlated mesoscopic state emerges, whereas in the fermionic case, a molecular state forms.Using quantum Monte Carlo simulations, we reveal the vastly different polaronic properties of these ionic systems compared to neutral quantum impurities. Unlike neutral impurities, ionic polarons can bind a large number of excitations, leading to a nontrivial interplay between few- and many-body physics. This fundamentally alters the ground-state properties of the polaron. Our results may also shed light on related systems, such as how composite excitons—bound states of an electron and a hole—affect many-body physics when interacting with a two-dimensional electron gas.

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Quantum optics and quantum technologies with giant emitters

Anton Frisk Kockum

Chalmers University of Technology / Universität Tübingen

When studying the interaction between light and matter at the quantum level, it is common to apply the dipole approximation, where atoms or other quantum emitters are assumed small compared to the wavelength of the light. However, recent experiments [1,2] with superconducting qubits (artificial atoms), coupled to surface acoustic waves or microwave transmission lines, have shown that it is possible to realize "giant emitters", i.e., quantum emitters that couple to light (or sound) at multiple points that are wavelengths apart. In this talk, I will present an overview of theoretical and experimental work on such giant emitters [3]. In particular, I will explain how the relaxation rate of a single giant emitter can be designed [4] and how multiple giant emitters can interact via a waveguide while remaining protected from relaxation into the waveguide [5]. I will also show experimental data demonstrating these phenomena [2]. Finally, I will give an outlook for how these properties of giant emitters may be used for quantum technologies such as quantum simulation [6], quantum communication, and quantum sensing.

References

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Observation of Relaxation Stages in a Nonequilibrium Closed Quantum System: presence of universalities and cascades

Vanderlei Bagnato

BME–Texas A&M University (USA) and IFSC–University of São Paulo (Brazil)

The dynamics of non-equilibrium closed quantum systems and their path to thermalization are of fundamental interest to diverse fields, from cosmology to particle physics. However, a comprehensive description of nonequilibrium phenomena and evolutionary progress towards equilibrium still presents a significant challenge. In this presentation, we report the experimental observation of different stages during the relaxation of decaying turbulence in trapped Bose-Einstein condensates. Our findings show a direct flow of particles from low to high momentum, a consequence of the injection of energy into the system, exhibiting a universal scaling feature. A prethermalization stage seems to be present preparing the system for the final stage of thermalization. This step is followed by a cascade of particles responsible for repopulating the previously depleted condensate. Both cascades can be explained through self-similar solutions predicted by wave turbulence theory. These findings provide important information about the connection of many phenomena during the evolution of a nonequilibrium many-body quantum system. Different possibilities of evolution based on the final reached states will be discussed.

Dipolar supersolids and lattice gases

Luis Santos
Leibniz Universität Hannover

Recent experiments on dipolar gases of magnetic atoms and polar molecules are opening interesting new possibilities, which I will briefly discuss in this talk. On one side, experiments on dipolar Bose-Einstein condensates of magnetic atoms have recently created a dipolar supersolid array of quantum droplets, in which superfluidity and crystal-like order coexist. After briefly introducing the idea of quantum droplet and dipolar supersolids, I will discuss in some detail some of our recent results on 2D supersolids and dipolar Bose-Bose mixtures. In the second part of the talk, I will focus on dipolar gases in optical lattices. After discussing the new physics introduced by the dipole-dipole interaction in the physics of quantum gases in optical lattices and tweezer arrays, I will discuss some of our more recent results, including disorder-free localization due to Hilbert-space fragmentation, relaxation dynamics in dipolar spin models, and novel quantum phases in ladder geometries.

Topological excitations in spinorial Bose-Einstein condensates

Víctor Romero-Rochín
Instituto de Física, UNAM

Topological defects are ubiquitous in physics, allowing for the emergence of thermodynamic phases that are robust under continuous deformations, with novel potential applications. In this talk we will discuss the appearance of vortices and Skyrmions, which are typical topological excitations, in 2D spinorial Bose-Einstein condensates interacting with external magnetic fields and, in particular, we will show the derivation of the most general expression for the Skyrmion topological charge for 2D spin textures. We illustrate our results with a variety of different configurations of the magnetic field, within the Gross-Pitaevskii model. We will also argue on the similarities and discrepancies of this topological charge with the Euler characteristic of the Gauss-Bonnet theorem.

Resolving exciton and polariton multi-particle correlations in an optical microcavity in the strong coupling regime

Carlos Silva Acuña

Institut Courtois, Université de Montréal

Multi-particle correlations of exciton-polaritons and reservoir-excitons in the strong light-matter coupling regime dictate the quantum dynamics of optical microcavities. In this letter, we examine the many-body exciton-polariton dynamics in a Fabry-Pérot microcavity of a two-dimensional metal-halide semiconductor over timescales involving polariton (1 ps) and exciton (1 ps) scattering. We find enhanced exciton nonlinear dynamics in the microcavity versus the bare semiconductor, concomitant with ultrafast polariton scattering dynamics. We measure, by means of coherent spectroscopy, the coupling between exciton-polaritons, bright excitons, and reservoir-excitons that highlight the complex scattering landscape that fundamentally drives polariton condensation.

Wednesday, 22/10

Talking Dual-Use of Quantum Technologies: Between Civilian Promise and Military Concerns

Esben Rohan Christensen
The Danish Institute

What are the future imaginaries of quantum technologies and how should their risks and promises be communicated? This paper examines how dual-use dilemmas in quantum innovation are framed across scientific, governance, and business domains. While atomic technologies set the precedent for dual-use concerns, the quantum field complicates these distinctions in unprecedented ways. Emerging within fast-moving and interconnected ecosystems, quantum technologies blur boundaries between civilian and military, beneficial and harmful, controllable and unpredictable. Dual-use communication often presumes that risks and benefits can be anticipated, thresholds defined, and trajectories managed. In the quantum domain, such assumptions are increasingly under strain. Through an analysis of scientific publications, governance frameworks, and industry reports, we map the emerging discursive landscape of dual-use quantum technologies. We show that, rather than a unified narrative, multiple overlapping and divergent framings coexist, reflecting different ideas about responsibility, utility, and control. By situating quantum technologies against the backdrop of earlier dual-use dilemmas while emphasizing their contemporary complexities, the paper argues for more reflexive and adaptive approaches to communicating risks and values in quantum innovation.

Beyond Binary Interactions: Three-Body Forces in Rydberg Systems

Valentin Walther
Purdue University

Polarization forces are ubiquitous in nature, shaping interactions in both living and non-living systems. They are most often described in terms of pairwise (binary) interactions, yet there are important situations where this picture breaks down. In this talk, I will present two cases where three-body effects become essential.

In the first part, we revisit the binary-interaction limit for lattice systems of Rydberg atoms. I will discuss the regimes where this approximation holds and highlight the conditions — particularly near Förster resonances — where three-atom interactions play a dominant role. We characterize the resulting low-energy Hamiltonian and explore the distinct quantum behavior that emerges in this regime.

In the second part, we turn to Rydberg macrodimers, micron-scale diatomic molecules recently observed in atomic lattice experiments. I will outline their optical response, from simple resonances in the weak-coupling regime to the appearance of Fano-like line shapes when macrodimers hybridize with continuum states at stronger coupling. Finally, I will describe the regime of very strong coupling, where new bound states appear: genuine three-atom molecular wavefunctions, which we term microtrimerons. I will compare these theoretical predictions with recent experimental observations.

The Tracer and the Fermi gas

Peter Pickl
Universität Tübingen

At cold temperatures, many body quantum systems show interesting features not known from classical gases. One famous example is Bose–Einstein condensation, where the correlation between the Bosons leads to an aggregation of Bosons such that there is a macroscopic occupation of the same state. For Fermions one encounters a contrary effect: The correlation between the particles that comes from the anti-systematization works against aggregation. Fluctuations in the gas are heavily suppressed, dissipation and friction of particles entering the gas are heavily reduced. In the talk I will present recent findings on the dynamics of an additional particle — called tracer — interacting with the Fermi gas. The results show that, in fact, the tracer moves freely on a time scale much longer compared to the time scale one gets for a classical gas or a Bose gas.

Quantum information processing with light through linear and nonlinear optics: photonic networks and our advances in integrated photonic devices.

Francisco Domínguez
CICESE

Photonics provides a key platform for quantum information processing through the control and manipulation of light states. In this talk, we will present our recent advances in schemes that combine linear and nonlinear processes, including frequency conversion for temporal-mode qubits and the generation of squeezed states. We will also discuss the design of photonic networks based on a silicon nitride platform, aimed at quantum information applications. Finally, we will highlight our advances in the development of integrated photonic devices, both linear and nonlinear, which open new possibilities for generating and controlling quantum states of light with applications in cryptography and quantum computing.

Gravitationally Induced Quantum Transitions

Manu Paranjape
Université de Montréal

We calculate the probability for resonantly induced transitions in quantum states due to time dependent gravitational perturbations. Contrary to common wisdom, the probability of inducing transitions is not infinitesimally small. We consider a system of ultra cold neutrons (UCN), which are organized according to the energy levels of the Schrödinger equation in the presence of the earth's gravitational field. Transitions between energy levels are induced by an oscillating driving force of frequency ω. The driving force is created by oscillating a macroscopic mass in the neighbourhood of the system of neutrons. The neutrons decay in 880 seconds while the probability of transitions increase as t2. Hence the optimal strategy is to drive the system for 2 lifetimes. The transition amplitude then is of the order of 1.06×105 hence with a million ultra cold neutrons, one should be able to observe transitions.

Thursday, 23/10

Topological braiding operations with non-Hermitian Hamiltonians

Hugo Ribeiro
UMass Lowell

Quantum mechanics is a century-old theory that successfully describes counterintuitive phenomena of the microscopic world. Phenomena that, until not so long ago, would be considered irrelevant for the "real", macroscopic world. Quantum technologies are, however, nowadays providing a paradigm shift in this thinking: They offer a wealth of potentially revolutionary applications that could change the field of Information and Communication Technology and lead to tremendous breakthroughs in disciplines such as medicine and chemistry. But building functional quantum technologies requires, among others, the ability to precisely manipulate any quantum state, a task that we are currently not able to perform to the required degree. In this talk, I will present general frameworks that allow one to tailor quantum dynamics to achieve a desired evolution in the presence of unwanted interactions. These theories allow one to find high-efficiency control sequences that are fully compatible with experimental constraints on available interactions and their tunability. I will then discuss how these methods can be leveraged to implement topological braiding operations by encircling exceptional points in the spectrum of non-Hermitian Hamiltonians.

Organic molecules as spin-optical interfaces: from quantum sensing to photoredox catalysis

Joel Yuen-Zhou

Department of Chemistry and Biochemistry, University of California San Diego

The transduction of quantum information from the microwave to the UV-visible range can be surprisingly robust in open-shell organic molecules. At the heart of this possibility is the observation that small changes in spin dynamics can lead to drastic changes in electronically excited processes. In my talk, I will describe our recent efforts designing organic molecules whose ground-state properties can be exploited for magnetometry, serving as organic analogues of NV centers [1,2,3]; some of the predictions have been demonstrated by recent experiments of the Wasielewski group [4,5]. These examples provide clear evidence that chemical design can serve to augment the toolbox of quantum information. Conversely, I will conclude by suggesting that the opposite should also be true: subtle control of spin dynamics should lead to dramatic changes in chemical behavior in appropriately designed schemes for photoredox catalysis, and in particular, for enantiopurification [6].

References

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Resonances in Non-Relativistic Quantum Electrodynamics

Diego Iniesta Miranda
IIMAS, UNAM

We introduce a new multi-scale analysis method to investigate the spectral properties of non-relativistic quantum electrodynamics with critical coupling. We obtain mathematically rigorous results on the existence of resonances for atoms minimally coupled to the quantized electromagnetic field, without infrared regularization.

A New Organization of Quantum Theory Based on Quantum Probability

Stephen Bruce Sontz
Centro de Investigación en Matemáticas (CIMAT), Guanajuato, Mexico

The kinematics of quantum theory is given a new organization with quantum probability theory playing the central role. By a 'probability theory' is meant a calculus for producing numbers between 0 and 1 for any finite sequence of events. The definition of 'event' in quantum theory is motivated by the functional calculus of self-adjoint operators to be an orthogonal projection operator acting in some given Hilbert space. Mathematical definitions of consecutive and conditional probability are given in terms of the events in a von Neumann algebra associated to a given quantum system. The 'collapse of the state' is then seen as just one step in a two step algorithm for computing one conditional probability of two consecutive events; it is not itself an event in the above sense. This next leads to a definition of independent events and hence its negation, which are called *entangled events*. This definition of entanglement is shown to include the usual tensor product formalism as well as new situations, such as entanglement in C^p, where p is prime. If time permits, the corresponding new dynamics of quantum theory will also be presented, where Schrödinger's equation plays a secondary role.

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A New Approach to Quantum Theory, The Central Role of Probability. World Scientific, to appear, 2025.

One way of solving the problem of popularizing the basics of quantum mechanics

Sergio de Régules
DGDC, UNAM

One way of solving the problem of popularizing the basics of quantum mechanics.

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