Quantum Knowledge: States, Systems, Fictions

Spring Symposium
As part of the symposium series *Gender and Equality in the Arts*

2 – 3 April 2025
Institute Art Gender Nature HGK Basel FHNW
On-site and online:
Auditorium D 1.04, Tower Building, Basel Academy of Art and Design FHNW

→ LIVESTREAM

With contributions by Karen Barad, Mónica Bello, Johanna Bruckner, Mayte Gómez Molina, Adam Haar Horowitz, Nicole L'Huillier, Amanda E. Metzger, Manaswi Mishra, Jenna Sutela, Spencer Topel and James Wootton, and Suzanne Treister

Moderated by Chus Martínez and Quinn Latimer

Research: Marion Ritzmann Press: Anna Francke

The symposium is open to the public and will be held in English. Free admission.

More information and program: dertank.ch

Quantum Knowledge: States, Systems, Fictions is a symposium dedicated to reconsidering the social and the scientific together. Beginning from those quantum discoveries and tools that allow us to sense the world in a deeper and more relational way, we might examine the inherent possibilities of quantum knowledges to preserve and expand the values we believe in as integral to a democratic society. As Karen Barad, keynote speaker of this symposium, notes: "The so-called uncertainty principle in quantum physics is not a matter of 'uncertainty' at all but rather of indeterminacy." If scientific and technological revolutions are often victims of unfortunate appropriations that expose them only as a danger to the social good and our planetary contract, we believe that with the help of a good science, such nascent technologies and new forms of intelligence need not be placed in opposition to art, equity, and justice. Over the course of two days at Institute Art Gender Nature HGK Basel FHNW, a gathering of esteemed thinkers, physicists, artists, composers, computer scientists, curators, and technologists will discuss how quantum ideas and practices have irrevocably shaped their work and their thinking—artistic or otherwise—and how they might alter our own.

You may ask yourself: Why discuss quantum theories within the context of artistic practice? What is the meaning of "quantum knowledges"? From ancient times humans have been interested in questioning the cosmos about its existence. Many cultures have long combined observation and mathematics with the production of myths and magical narratives to create eloquent ways of describing and explaining our place in the world. Quantum names a paradigm that defies our common sense, a model that explains how space, time, matter, and light exchange information and create a network of events. These events are diverse aspects and dimensions of life that are connected in ways we are still learning to understand. Art is not physics, no, yet it can be deeply committed to illuminating a world free of the prejudices and

biases that the weak human senses have imposed upon the description of the real. We believe that it is fundamental—given the developments that technology has currently taken—to create a ground where artistic and scientific practices can be discussed and elaborated on together.

If the quantum sciences embody a continuous exploration of myriad ways of thinking oriented toward revealing new regions of reality and relationality, art practices constitute an exercise in including subjectivity, materiality, relational ontology, and the mysteries of poetry into this journey. The current state of quantum science, with the development of quantum computers less than a decade away, is facing the challenge of unveiling a new set of images of the world, while facing us with unprecedented ethical questions that deeply disrupt the social and ecological contract. For this reason, awareness of the limits of our current epistemologies equals awareness of the fact that what we know may be wrong. And the courage to accept new paradigms to explain the underlying structures of our world and our experience of them should include the courage to accept that no paradigm has the monopoly and that we need to create co-existent ways of approaching the real.

Quantum Knowledge: States, Systems, Fictions is held in conjunction with the UN's International Year of Quantum Science and Technology.

The symposium is dedicated to the memories of Alan Longino and Yutaka Matsuzawa.

Technical team

Emily Harries, Charlotte Horn, Katharina Kemmerling, Marco Mastrogiacomo, Daniele Praiano, Konrad Sigl

Following the first day of the symposium, on 2 April 2025, from 5.30 pm, the exhibition *The Cat in the Box* will open at Atelier Mondial in Basel/Münchenstein. The show takes up the symposium's subjects and will feature works by Shadwa Ali, Nikki Middlemiss, Elia Setiadi, Seraina Semmelroggen, and Olivia Vidovic. Curated by Filipa Ramos, *The Cat in the Box* is on view until 13 April, and is a collaboration between Atelier Mondial and Institute Art Gender Nature HGK Basel FHNW.

ateliermondial.com

Karen Barad's participation in the symposium is hosted jointly with the University of Basel's Center for Gender Studies.

genderstudies.philhist.unibas.ch

Institute Art Gender Nature
Basel Academy of Art and Design FHNW

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PROGRAM (subject to alterations)

DAY I – 2 April 2025

Part 1

10.00 am	Welcome by Chus Martínez and Quinn Latimer
10.10 am	Reading by Quinn Latimer
10.25 am	Karen Barad (on-site only)
11.10 am	Mónica Bello
Noon	Lunch break

Part 2

2.00 pm	Welcome by Chus Martínez and Quinn Latimer
2.10 pm	Jenna Sutela
2.50 pm	Spencer Topel and James Wootton
3.30 pm	Break
3.45 pm	Mayte Gómez Molina
4.30 pm	Adam Haar Horowitz (online)
5.00 pm	Round-up of DAY I by Chus Martínez and Quinn Latimer
5.20 pm	End of DAY I

Followed by the opening of the exhibition The Cat in the Box at Atelier Mondial,

Freilager-Platz, Basel/Münchenstein

DAY II - 3 April 2025

Part 3

10.00 am	Welcome by Chus Martínez and Quinn Latimer
10.10 am	Reading by Quinn Latimer
10.25 am	Nicole L'Huillier
11.10 am	Suzanne Treister (online)
Noon	Lunch break

Part 4

2.00 pm	Welcome by Chus Martínez and Quinn Latimer
2.10 pm	Amanda E. Metzger
2.50 pm	Manaswi Mishra
3.30 pm	Break
3.45 pm	Johanna Bruckner
4.30 pm	Round-up of DAY II by Chus Martínez and Quinn Latimer
5.00 pm	End of DAY II

BIOGRAPHIES OF PARTICIPANTS

Karen Barad is Distinguished Professor of the History of Consciousness at the University of California, Santa Cruz. Barad holds a PhD in theoretical particle physics and quantum field theory, though their work is connected to philosophy as well as to more transdisciplinary fields. Barad is the author of *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Duke University Press, 2007) and articles in the fields of physics, philosophy, science studies, materialism, and nuclear colonialism. A founding member of the Science & Justice Research Center at UCSC, Barad has been honored with an honorary doctorate from the University of Gothenburg, a Fulbright Scholarship, and the Kresge College Teaching Award.

Mónica Bello is an art historian and curator based in Geneva and Barcelona. Until March 2025, she served as Head of Arts at CERN, where she led artist residencies, art commissions, and exhibitions, supporting numerous artists and fostering collaborations between creators and scientists. Under her tenure, the Arts at CERN team receive the 2024 STARTS Grand Prize for Collaborative Innovation. Some notable curatorial projects include *Quantum Visions* (2025), the Icelandic Pavilion at the Venice Biennale (2022), *Dark Matters* (2023), and *Broken Symmetries* (2018–2021). She has developed unique global expertise at the intersection of art, science, and technology, fostering innovative collaborations across disciplines.

Johanna Bruckner is a Zurich-based artist working across sculpture, performance, and digital art. Through a lens of posthumanist and queer theory, her work examines the conditions of labor emerging in response to the technologies of communicative capitalism. Her work has been exhibited widely, including at Schirn Kunsthalle Frankfurt; Berlinische Galerie; Haus der Kulturen der Welt, Berlin; transmediale, Berlin; CAC Centre d'Art Contemporain Geneve; Mediterranea Biennial 19; ICA Milano; and the 16th Venice Architecture Biennial. She was a Visual Arts Fellow at Istituto Svizzero, Rome, and a recipient of the Pax Art Award and the Medienkunstpreis der Stadt Wien.

Mayte Gómez Molina is a writer, researcher and new media artist who uses writing as the backbone of a practice that experiments with the expansion of literature through new media and technology. Winner of the National Young Prize of Poetry of Spain in 2023, she is currently part of the MAKE/SENSE PhD Program at Basel Academy of Art and Design FHNW. She is a lecturer at Institute Art Gender Nature HGK Basel FHNW.

Adam Haar Horowitz received his PhD and Postdoc from the Massachusetts Institute of Technology, Cambridge, with research completed at the MIT Media Lab, Fluid Interfaces Lab, and Harvard Medical School Center for Sleep and Cognition. At MIT he co-founded an ongoing symposia series on Dream Engineering, created and co-taught the MAS.S63 Engineering Sleep and Dreams class, and was the Creative Lead for MIT Hacking Arts. He has served on the MIT Center for Art, Science, and Technology Selection Committee; on the Advisory Board for Boston NPR; and on the Board of the Harvard Medical School Center for Law, Brain, and Behavior.

Quinn Latimer is a writer, editor, and occasional curator. Her books include *Like a Woman: Essays, Readings, Poems* (2017) and *Rumored Animals* (2012). She recently curated the exhibitions *SIREN* (some poetics), which explored technologies of myth and mouth, earth and alarm, at Amant, New York, and *Perpetual Language: Patricia L. Boyd and Na Mira*, made under the signs and spirits of Roland Barthes and Teresa Hak Kyung Cha, at Croy Nielsen, Vienna. She was editor-in-chief of publications for documenta 14. She is Head of the MA at the Institute Art Gender Nature HGK FHNW Basel, where she is also a PhD candidate.

Nicole L'Huillier is a transdisciplinary artist and researcher from Santiago, Chile. Her practice centers on exploring sounds and vibrations as construction materials to delve into questions of agency, identity, collectivity, and the activation of a vibrational imagination. Her work materializes through installations, sonic/vibrational sculptures, custom-made (listening and/or sounding) apparatuses, performances, experimental compositions, membranal poems, and writing.

Chus Martínez is a writer and curator, and Head of Institute Art Gender Nature HGK Basel FHNW. She is curator of Ocean Space, in Venice, for TBA21–Academy; curatorial director of der TANK, in Basel; and Artistic Director of the 36th Ljubljana Biennale, in 2025. Previously, Martínez was curator of KölnSkulptur #9 and has curated numerous exhibitions. Her books include *Like This: Natural Intelligence as Seen by Art* (2022), *Corona Tales: Let Life Happen to You* (2020), and *Club Univers* (2017). Previously, she was Head of the Department of Artistic Direction for DOCUMENTA (13), in Kassel.

Amanda E. Metzger is an artist whose practice revolves around network theory, data collection, and authorship. In her work she is interested in how memories are made, measured, shared, and generated, and how one creates a multi-bodied common consciousness. Her practice spans multiple mediums, such as installation, moving image, and photography. Her work has been exhibited at the House of Electronic Arts, Basel; Kunstmuseum Luzern; Fliesengalerie Leipzig; and Pilar Brussels. She has been selected for the next Connect Residency at CERN, which she will begin later in 2025.

Manaswi Mishra is a Lego Pappert fellow and PhD student in the Opera of the Future research group at the MIT Media Lab. His research explores strategies for a new creative age of composing, performing, and learning music using A.I. centered around bespoke human intent. Manaswi's research can be seen in the development and performance of operas like *VALIS* (2023) and *FLOW Symphony* (2024). His work on AI music performance and copyright law has been published by MIT Press, Harvard Tech Review, The Washington Post, Boston Globe, and elsewhere. He is the founding instigator of the Music Tech Community in India, organizing curricula, workshops, hackathons, and community events to foster a future of music and technology in his home country.

Jenna Sutela is a Finnish artist based in Berlin. Sutela explores biological and computational processes, from the human microbiome to planetary ecosystems to language and code. Her sculptures, installations, and sound pieces frequently include chance elements and evolving structures: they are both live and alive. Often working in dialogue with scientists, she is interested in moving beyond individualism and anthropocentrism to consider interrelationships at all scales. Her work has been presented at the Castello di Rivoli, Turin (2025); Swiss Institute, New York (2023); Helsinki Biennale (2023); Haus der Kunst, Munich (2022); and the Shanghai Biennial (2021). A visiting artist at La Becque, MIT, and Callie's Berlin, she will represent the Finnish Pavilion at the 61st International Venice Biennale, in 2026.

Spencer Topel is an artist and composer whose practice intersects sound art, installation, performance, and technology as it relates to physical experience. Previously a professor of music and technology at Dartmouth College, his work involves human-machine interfaces, interactive systems, signal processing, machine learning, autonomous robotics, and electromechanical systems. In 2018 and 2019, he was artist-in-residence at the Yale Quantum Institute, where he and his team of physicists produced the first music synthesizers from hardware qubits. This work led to further research into quantum simulation of variational quantum circuits and quantum machine learning. He has performed and exhibited at major venues around the world including MoMA, New York; the Barnes Foundation, Philadelphia; and the Arts Club of Chicago.

Suzanne Treister is a London-based artist and pioneer in the new media field since 1989. She works across the permeable boundary separating the frontiers of scientific enquiry from mystical revelation. Her projects, meanwhile, interrogate the relationship between emerging technologies, society, and alternative belief systems to suggest unseen forces that shape our present reality and have implications for the future that we are only beginning to understand. She studied at St Martin's School of Art, London, and Chelsea College of Art and Design, London. Recent solo exhibitions include *The Escapist BHST (Black Hole Spacetime)*, Serpentine Galleries, London; *HEXEN 5.0*, Annely Juda Fine Art, London; and the forthcoming *Prophetic Dreaming*, Modern Art Oxford, Oxford, England.

Dr. James Wootton is the Chief Scientific Officer of Moth, a pioneering company bringing quantum computing to musicians, gamers, and digital artists. After receiving his PhD in quantum computing from the University of Leeds, Wootton relocated to Switzerland to conduct postdoctoral research and lecture at the University of Basel. During this time he also began to develop citizen science and education games around quantum technology, as well as develop the first simple games to run on quantum hardware. From 2018 to 2024, he further investigated the intersection of quantum computing and games at IBM Research, as well as helping to make quantum computers that actually work.