

Tkach, Colleen

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Subject: EM: Dept of Natural Sciences Seminar Announcement - 11/14

From: Lauran Soto

DNS Seminar Announcement:

Acts of Imagination in Science

Dr. John Myers
Project Scientist (Retired)
School of Engineering and Applied Science
Harvard University

Friday, November 14, 2025

12:15pm-1:15pm
Burns Lecture Hall (NS E007)

Dr. Myers will speak about some of the visions and guesses that have advanced science, including those of himself and his colleague Hadi Madjid. He will sketch the role of a vision in arriving at his and his colleagues' proof in quantum theory that calculation and data are insufficient to determine any explanation: explaining in terms of quantum theory requires an act of imagination. That proof has a reflection in the humanities in the recognition of Isaiah Berlin's admonition against claims of final answers.

Biographical Sketch:

Dr. Myers graduated from Caltech in 1956. In 1957 he was at the University of Göttingen, where he listened to Heisenberg lecture. He earned his Ph.D. in Applied Physics from Harvard in 1963, concentrating on electromagnetic theory. Other highlights: In 1967-68 he was an Analyst for the War Department, concerned with electronic warfare. In 1978 he consulted for Draper Laboratory concerning the synchronization of fault-tolerant computers. In 1998, he taught quantum computing as an IBM Visiting Professor at Brown University. He took part in building the first 5-spin nuclear-magnetic-resonance quantum computer. As a Project Scientist at the Harvard School of Engineering and Applied Sciences, he worked with Tai Tsun Wu on electromagnetic missiles. He led Harvard's participation with BBN Technologies and the Boston University Photonics Laboratory in the DARPA Quantum Network. In 2005, with Hadi Madjid he proved a gap between evidence expressed in quantum mechanics and explanations of that evidence---a gap bridged only by reaching beyond logic to make a guess. He has published more than 50 papers in refereed journals, mostly on electromagnetics and quantum

theory, but with several touching on biology. His most recent publication with Hadi Madjid is "Computations in living organisms modeled by marked graphs." *Bull Math Biol* 87, 118 (2025).

Department of Natural Sciences Seminar Series

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Best,
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