

## Quantum email #2 – May 5 meeting, Pre-Socratics and Halpern video

Dear Philosophers,

This email has three main messages:

1. Our May 5<sup>th</sup> meeting is fast approaching. This will be both a live meeting on my patio and a zoom session. See details below. Reserve now for the zoom version. If you are not on this list 7 pm - ***Philo w Paul Halpern***. Yes total: (13). (in-person – 5 so far, sorry, my max.) Albert, Paul H, Ray, Gloria, Len (via Zoom 8) John M., Chris, Wilty. Bob F, Ken U, Paul M., Nate D. **See Zoom link below.** Links to materials by our speaker, Paul Halpern and Zoom link/ Yes, you may still reserve!
2. Links to Pre-Socratics and Physics
3. My favorite Paul Halpern video

**#1 Meeting Prep** - So here we go. Our first matter is info about our speaker, prep materials for us and how to join us on the 5<sup>th</sup>.



**Melrose Park Philosophy Club**

*“Where the mind thrives”*

**Quantum Physics with Paul Halpern set for Philo session on Wednesday, May 5, 2021**



*Dr. Paul Halpern*

Quantum Physics is notoriously hard to understand for most people. Yet you can learn many of the fundamentals in just one session by attending our next Zoom meeting featuring noted author and physicist Dr. Paul Halpern.

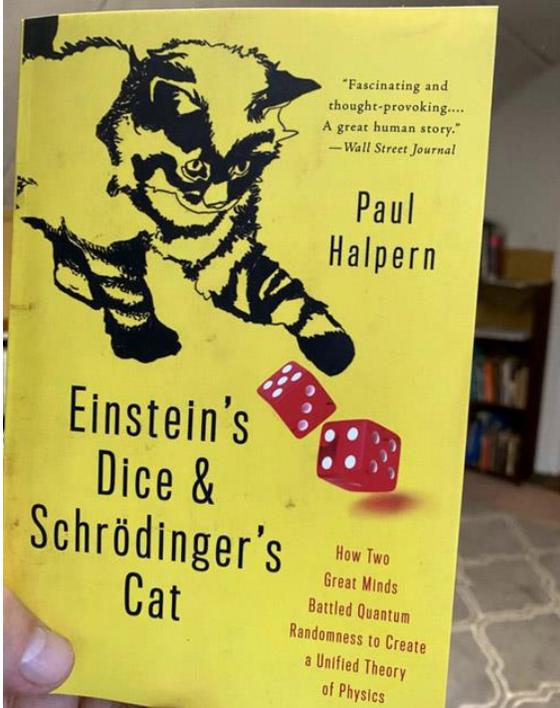
He will be speaking about one of his very readable and engaging books, *Einstein's Dice and Schrodinger's Cat*.

Dr. Halpern is a wonderfully talented speaker and author. He is Professor of Physics and Fellow in Humanities at the University of the Sciences in Philadelphia. Be sure to see his full bio farther below. (Please buy this fascinating book. You still have time)

This session will be a special pleasure for our group, as we will be able to hear from Dr. Halpern directly and pose our particular questions.

Quantum Physics has much mystique and mystery about it. The field addresses some of the most fundamental questions about the universe:

- Is everything in the universe pre-determined? Or does chance play a role?
- What is, as Einstein called it: "Spooky action at a distance." (also known as entanglement.)
- Can particles affect each other simultaneously at speeds greater than that of light?
- What is space-time?
- What is the Uncertainty Principle?
- Why did Einstein not accept many aspects of Quantum Physics?
- What is the generally accepted view today of the validity of Quantum Physics today among physicists?



*Above: my copy of Dr. Halpern's book. It is in a box. We will open the box at our meeting, and it will either be there or not there. Bets are being taken and will be tallied by our recording secretary who, likewise, will either be there or not there.*

As one of the field's founders, Richard Feynman once said: "I think I can safely say that nobody understands quantum mechanics."

Yet *you* will at least walk away from this session with a deeper understanding of the basic issues which the field addresses. The session will be geared towards non-scientists.

*Einstein's Dice and Schrodinger's Cat* tells the important history of Quantum Physics, including the roles of such critically important figures. These include Wolfgang Pauli, Max Planck, Louis de Broglie and many others. You will also get an overview of key issues in the field.

## Here are the meeting's particulars:

When?	7 pm, Wednesday, May 5 <sup>th</sup> , 2021. Dr. Halpern will speak for 20 minutes, and then we will open the floor for discussion.
Where?	Mainly Via Zoom. However, some pre-selected individuals have been invited to our patio in Melrose Park to participate in the event live. Due to covid concerns, we have limited this group to five people, including our speaker. Sorry, this list is closed. Zoom remains open!
How?	Via a single Zoom link. If interested in this session, contact me, Albert Fried-Cassorla, for the link. <a href="mailto:albfcc@icloud.com">albfcc@icloud.com</a> This one link will last our entire session, including the follow-up discussion. The link will only be sent to those registered.

<p>Prior readings?</p>	<p><b>Please purchase a copy of <i>Einstein's Dice and Schrodinger's Cat</i>.</b> However, this purchase encouraged but not mandatory.</p> <p>Suggested additional readings: The first six paragraphs of this article will give you some basics if the field. Also see Dr. Halpern's articles below. <a href="https://en.wikipedia.org/wiki/Introduction_to_quantum_mechanics">https://en.wikipedia.org/wiki/Introduction_to_quantum_mechanics</a></p> <p>Watchings: Paul Halpern Synchronicity: Wolfgang Pauli &amp; Carl Jung <a href="https://www.youtube.com/watch?v=v31-Svw9W6Q">https://www.youtube.com/watch?v=v31-Svw9W6Q</a> (or search using the term: Dr. Paul Halpern)</p> <p>On Quantum Physics (short): (12 min.) <a href="https://www.youtube.com/watch?v=Usu9xZfabPM">https://www.youtube.com/watch?v=Usu9xZfabPM</a></p> <p>On Quantum Physics (longer): (54 min.) <a href="https://www.youtube.com/watch?v=CBrsWPCp_rs">https://www.youtube.com/watch?v=CBrsWPCp_rs</a></p>
<p>Reserve?</p>	<p>Yes, Please do so via an email sent to <a href="mailto:albfcc@icloud.com">albfcc@icloud.com</a></p>

Since Dr. Halpern will be speaking for a short while in comparison to the breadth of his subject matter, you are encouraged to read up and watch his many engaging youtube.com videos.

### **BIO: PAUL HALPERN**

Paul Halpern, a Fellow of the American Physical Society, is a theoretical physicist specializing in general relativity and the history of physics. He is Professor of Physics and Fellow in Humanities at the University of the Sciences in Philadelphia. Halpern received his PhD at Stony Brook University under the supervision of Max Dresden, and has held visiting positions at Hamilton College and Haverford College. In summer 1996, he was a Fulbright Scholar researching evolutionary algorithms at Humboldt University of Berlin. In 2002, he received a Guggenheim Fellowship, which enabled him to spend an academic year researching the history of higher dimensional unified theories in physics.

Halpern has published seventeen books, most recently *Flashes of Creation* and *Synchronicity*, along with dozens of research articles, and has given numerous scholarly presentations at conferences and universities. In addition, he has been active in public outreach. He has given numerous talks about physics to schools and organizations and has appeared in various media, including CSPAN, Radio Times, Future Quest, and The Simpsons 20<sup>th</sup> Anniversary Special. In recognition of his first book, *Time Journeys*, he was the recipient of an Athenaeum Literary Award. *Library Journal* named his book, *Collider*, its physics selection for the best science books of 2009.

***Helpful articles by Dr. Halpern:***

<https://phalpern.medium.com/is-it-magic-or-is-it-quantum-66a58e515da9>

<https://phalpern.medium.com/schr%C3%B6dingers-menagerie-1e6d6d1a7088>

<https://phalpern.medium.com/quantum-immortality-bbfb6be4f496>

2) **Pre-Socratics** = two topics in the subject line probably have little to do with each other. However, the Pre-Socratics (who are among of my favorites) sought to understand the essence of the universe. Some were especially interested in the physical nature of the world.

A great post-Socratic, Epicurus, even posited the notion of “swerve.” Swerve violates the regular mechanical operations of the world, perhaps in a way that adumbrates *acausality* and quantum leaps.

A good video on Pre-Socratics and Physics is this one by classicist Edith Hall:

<https://www.youtube.com/watch?v=iQG141EYtgA> (48 min.)

**3) My favorite Paul Halpern video**

There are so many vids to choose among. I like this one because it is wide-ranging and includes some seemingly off-topic but broadly philosophical discussions.

Michael Shermer w/ Paul Halpern – The Epic Quest to Understand the Quantum Nature of Cause & Effect

<https://www.youtube.com/watch?v=8DAHU-Tt8AI>

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### **Full Zoom Link info**

The above link should suffice. However, here is full info, should you need it.

Fried-Cassorla, Albert is inviting you to a scheduled Zoom meeting.

Topic: Philo Meeting - May 5, 2021

Time: May 5, 2021 07:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

<https://gmercyu.zoom.us/j/97119113456>

Meeting ID: 971 1911 3456

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