



TALKING WITH TOM WILLIAMS

W&L emeritus professor of physics and author of the recently published book, "Discrete Quantum Mechanics"

The Anne and Edgar Basse Author Talk Series showcases the creative and scholarly works produced by members of the Washington and Lee University community. During each installment of this series, held within Leyburn Library, a W&L author speaks about a recently published monographic work, fields audience questions, and is available to sign copies of the discussed book. H. Thomas (Tom) Williams will serve as the featured author for October's author talk.

In the below interview, Williams discusses what audiences can expect from "Discrete Quantum Mechanics" and his upcoming author talk, titled "The Secret Life of Schrödinger's Cat."

Professor Williams, what can we expect from your upcoming author talk?

Unlike the book, the talk is aimed at a general audience. The challenge of making this material both accessible and interesting to non-specialists is more daunting than writing the book itself, but I hope to succeed in doing so.

Can you describe your new book, "Discrete Quantum Mechanics"?

If the advice given to Steven Hawking holds true, that every equation included in a book cuts sales by one half, this book will have an audience of roughly zero. "Discrete Quantum Mechanics" is a very technical, very mathematical volume. It introduces the Heisenberg discrete approach to quantum theory and gives several important applications. It should be useful as a supplemental text for introductory quantum mechanics courses, or as an aid to independent learners.

What was your motivation behind writing "Discrete Quantum Mechanics"?

My research career has been one of deep involvement in a variety of theoretical disciplines involving the Heisenberg approach. Thinking that these varied experiences gave me a voice to talk about the common assumptions behind subfields like angular momentum theory, quantum information, etc., I set out to write a book in order to get a lot of ideas off my chest.

Did you use the University Library when researching and writing this book? If so, how?

A lot of time was spent studying texts and monographs on the topics I covered. A surprising number of sources were in W&L's collections, and for those that were not, interlibrary loan quickly brought me the needed materials.

Interested in learning more about "Discrete Quantum Mechanics"... and Schrödinger's cat?

Attend "The Secret life of Schrödinger's Cat" on

Oct. 20, beginning at 5:00 p.m. in Leyburn's Northen Auditorium! Williams' talk is free and open to the public. Refreshments will be provided.