

The Faculty of Mathematics and Computer Science
The Weizmann Institute of Science
announces the seventeenth

Chaim Leib Pekeris Memorial Lecture

to be delivered by

Professor Doron Zeilberger

Rutgers University

Sponsored by the Arthur and Rochelle Belfer Institute of Mathematics and Computer Science
at The Weizmann Institute of Science

The title:

**...We have come a long way (or did we?):
A Redux of Pekeris' 1958 Computations on a 2010 Computer**

on Wednesday, 30 June 2010, at 16:00
in the Dolfi and Lola [Ebner Auditorium](#), on campus

A reception in honor of Prof. Zeilberger will be held after the lecture

Abstract

The most widely cited paper of Chaim Leib Pekeris's is "Ground State of Two-Electron Atoms" published in *Physical Review* in 1958. This ground-breaking work in computational theoretical physics used ingenious state-of-the-art computations on the WEIZAC, that necessitated very long and tedious human pre-processing before it could be programmed.

Nowadays, computers, in addition to their obvious skill at "number-crunching", are also very good at "symbol-crunching". I will show that not only the computer part can be done much faster, but also the human part. In that respect, we did indeed come a long way. Sadly, in another respect, we didn't progress very far, and it is easy to come up with similar problems that would, most probably, remain for ever intractable.