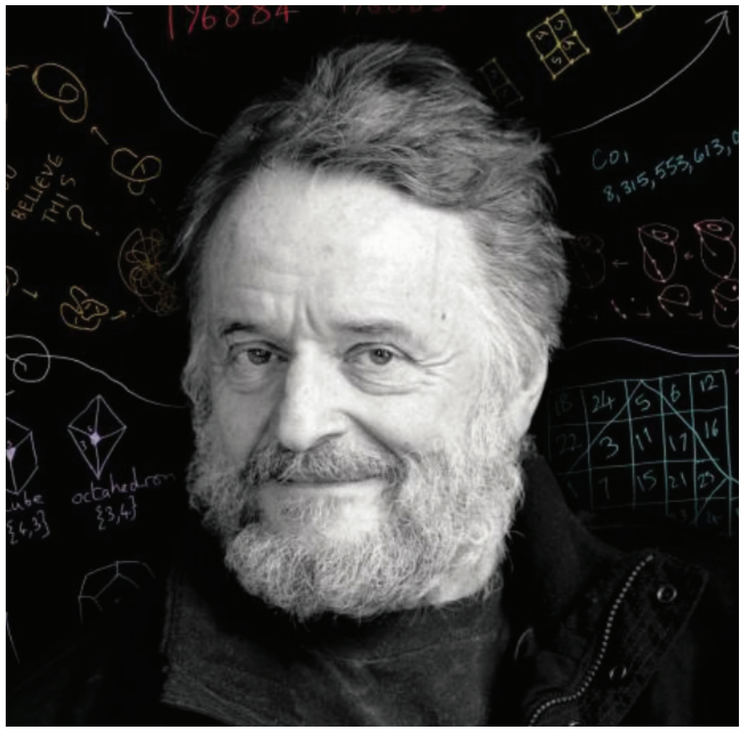
Department of Mathematical Sciences
Department of Computer Science and Computer Engineeering

special public lecture

John H. Conway

The Free Will Theorem



John H. Conway, subject of the recent biography *Genius at Play*, is the John von Neumann Professor of Mathematics at Princeton University and Fellow of The Royal Society • Inventor of the Game of Life• Discoverer of the Surreal Numbers and the Baby Monster Group• Fractran Programmer• Master of Philosopher's Football, Sprouts, and Hackenbush • Proposer of The Angels and Devils Problem, the Monstrous Moonshine Conjectures, and Countless Puzzles• Creator of Notations Useful, Famous, and Obscure• Namer of Numbers Vast and Small• Free Will Theorem Prover• Knot Enumerator and Pencil Weaver• et cetera, et cetera, ad infinitum.

The two theories that revolutionized physics in the twentieth century, relativity and quantum mechanics, are full of predictions that defy common sense. Recently, Conway and Simon Kochen used three such paradoxical ideas to prove "The Free Will Theorem", the culmination of a series of theorems about quantum mechanics that began in the 1960s. It asserts, roughly, that ***if indeed we humans have free will, then elementary particles already have their own small share of this valuable commodity!***

More precisely, if the experimenter can freely choose the directions in which to orient his apparatus in a certain measurement, then the particle's response is not determined by the entire previous history of the universe.

7pm April 7
Bell 2282
all are welcome

bonus colloquium: The Improbability of Further Fermat Primes
April 5, 4:30pm, SCEN 101

for more information contact the Dept of Mathematical Sciences 479 575 3351