

# Physics Department Seminar

Friday May 6<sup>th</sup>, 2005

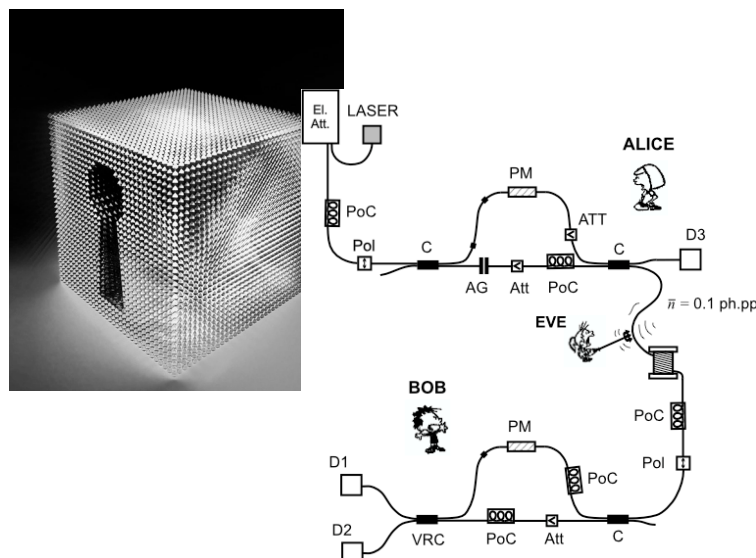
11:00am in PhSc 105

## “A Gentle Introduction to Quantum Cryptography”

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### Abstract:

Our modern world depends upon encryption to keep governments secure, commerce trustworthy, and privacy safe. Current encryption systems rely upon the intractability of certain types of mathematical problems. Though still on the horizon, quantum computing and its powerful mathematical algorithms promise to be a grave threat to the integrity of our conventional cryptosystems. To answer this threat, quantum cryptography provides a fundamentally new way of generating cryptographic keys and securely exchanging information that has been hailed as the “holy grail” of encryption systems. This lecture will cover the motivations, basic concepts, and current state of quantum cryptography research.