# Clarkson University
# Spring 2024 David A. Walsh‘67
# Arts & Sciences Seminar Series

## Friday, March 15th at 12pm

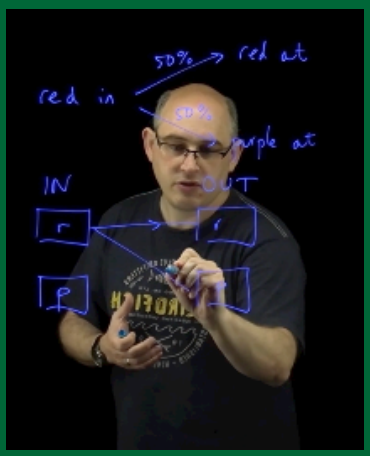
Room: Snell 212

## Quantum Cryptography

Quantum computers are never far from the news. There are new promises every day about how close they are to giving us fantastic new computational abilities. One application of this technology is in cryptography and code breaking. Quantum computers will be able to break many existing cryptography protocols, such as those that keep your online banking safe. They also offer new, uncrackable, security protocols: quantum cryptography. I will give a gentle, accessible, interactive introduction to the key concepts behind quantum cryptography – what problem does it solve, and how does it work? No prior knowledge of anything “quantum” is required.

## Alastair Kay, Royal Holloway, University of London

Bio: Dr. Kay obtained his PhD from the University of Cambridge in 2006 on the topic of Quantum Computation. He now works as a Reader in Applied Mathematics at Royal Holloway, University of London, UK. He is best known for his work on perfect state transfer, where one designs quantum systems to perform specific tasks, such as the shuttling of quantum data between distant points in a computer. His current research is mainly focussed on quantum error correction, particularly quantum Low Density Parity Check codes.




The Arts & Sciences Seminar Series is a weekly colloquium series that has been supported by the School of Arts & Sciences Advisory Council at Clarkson University especially through generous gifts from David A. Walsh ‘67.

SA&S 300: Arts and Sciences Seminar is a one credit course intended to foster an interdisciplinary outlook in undergraduates majoring in the School of Arts and Sciences.