

# University of Oklahoma Math Day

November 16, 2017

## Invited Lecture

“Keeping Secrets”

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**Talk abstract:** Whether it be information about military strategies, bank accounts, or personal issues, for thousands of years humans have developed innovative methods to transmit information covertly. More recently transmitting sensitive information covertly has become even more critical due the rapid increase in the amount of information being sent wirelessly. To keep information secret, one may hide the information (steganography) and/or encrypt the information (cryptography).

In this talk I will present some of the most infamous examples of cryptography and steganography in history and will describe how mathematics was developed to expose these secret communications. The talk will feature a description of the Enigma Code, which is the subject of the recent movie *The Imitation Game*, and will end with a look into what methods of encryption may be used in the future.

### Other activities

- Individual exam & prizes for top scorers
- Sooner Math Bowl — a team competition
- Lunch provided for all

### More information

[www.math.ou.edu/mathday](http://www.math.ou.edu/mathday)

Register online by November 2