Nazi Germany used the Enigma cipher machine to encrypt messages during World War II. During the war a large number of messages were broken by British cryptologists. Winston Churchill once said ”It was thanks to Ultra (the British codename for the intelligence gathered from these sources) that we won the war.” Dr. Rhoades will talk about how Enigma worked and give a sense for how it was broken.

Rob Rhoades got his Ph.D. in 2009 at Wisconsin under the direction of Ken Ono. His research interests, among many other topics, include Ramanujan’s famous ”mock theta functions”, which are now much less mysterious thanks to his work. He has held postdoctoral appointments at the Ecole Polytechnique Federale de Lausanne (in Switzerland) and Stanford University, and now works for the Center for Communications Research in Princeton, NJ.

Event supported in part by Residence Hall Association

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