



## Algebra and Number Theory Seminar

**Title:** Sofic shifts and their zeta functions

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**Date:** Mon 16th November 2009 at 4:00PM

**Location:** Mathematical Sciences Seminar Room

**Abstract:** In this talk, we will first go over the fundamental concept of sofic shifts which have been used to study constrained codes. We will especially focus on two types of sofic shifts; a shift of finite type (SFT) and a periodic-finite-type shift (PFT). We will then talk about the zeta function of a sofic shift, which is a generating function for the number of periodic sequences in the sofic shift, and discuss a simple formula to compute the zeta function of a PFT.