Title: On a new class of non selfadjoint algebras.

In 1960, Kadison and Singer initiate the study of non selfadjoint algebras of bounded operators on Hilbert spaces. They introduce and study "triangular algebras," subalgebras of C^*-algebra whose diagonal is maximal abelian selfadjoint. Recently, motivated by their work, we propose a generalization of the concept of "triangular algebras," and introduce a new class of non selfadjoint algebras. These algebras combine triangularity and von Neumann algebra properties in their structure.

In this talk, I will present some results on this new class of non selfadjoint algebras. The talk will begin with a gentle introduction to the theory of finite von Neumann algebras, concentrating on the concept of the hypterfinite II_1 factor. Then we will construct and study "maximal triangular algebras" with hypterfinite factors as their diagonals. If time permitted, we may discuss some facts concerning the "double triangle operator algebras."