

*International Workshop on Noncommutative Geometry (NCG2005), Sep. 11-22, 2005, IPM, Tehran*

## Primes and Space-Time: Two Spaces We'd Like to Know a Lot More About

(4 Lectures)

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The talks will center on two geometric spaces space-time prime numbers and will describe recent advances in understanding these spaces involving noncommutative geometry. For space time I'll cover my joint works with D. Kreimer and M. Marcolli involving the following topics Renormalization and motivic Galois theory and Standard Model and noncommutative geometry For the prime numbers I'll describe the spectral realization of zeros of zeta functions and related topics.