

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

Noncommutative Geometry and Number Theory

(3 Lectures)

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These lectures will cover several recent results on interactions between NCG and number theory. The main topics will be: (1) Noncommutative geometry and quantum statistical mechanics on modular curves, (2) Noncommutative geometry and the local factors of arithmetic varieties, (3) Noncommutative geometry and Galois theory in quantum statistical mechanics and quantum field theory.