

Institut Ruđer Bošković  
ZAVOD ZA TEORIJSKU FIZIKU  
Bijenička c. 54  
ZAGREB, HRVATSKA

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SEMINAR ZAVODA ZA TEORIJSKU FIZIKU

RBI-T-WINNING seminari



## Prime Suspects and Coprime Accomplices; Quantum Tales in Number Theory

**Prof. Giuseppe Mussardo**

International School for Advanced Studies (SISSA)  
Trieste, Italy

Datum: petak, 25. studenoga 2016.

Vrijeme : **15 sati c.t.**

Mjesto: IRB, seminar ZTF-a

### **Abstract:**

Number Theory is a subject full of curiosities, amusing problems and compelling challenges. The purpose of the seminar is to explore within the context of simple arguments the rich and elegant interplay that exists between the realms of numbers and the world of quantum mechanics. In particular we discuss the so-called Coprime Quantum Chain, i.e. a strongly correlated lattice system based on the divisibility properties of the occupation numbers of a Bose gas, the exponentially large degeneracy of its ground state and the surprising ability of this quantum system to simulate several different classes of universality, including those of Ising or q-state Potts model.

Voditelj seminara:  
Vinko Zlatić