

CIRM

Joint seminar Department of Mathematics – Centro Internazionale per la Ricerca Matematica

Monday 8 April 2019 – at 11.30 a.m. Seminar Room "-1" – Department of Mathematics

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Prime ideals in commutative rings and atoms

Abstract:

Prime ideals are important in commutative algebra (e.g. localization and Krull dimension), in algebraic geometry (e.g. affine schemes), and in number theory (e.g factorization in Dedekind domains). This talk - which is about prime ideals, their generalizations, and their uses - has three parts: In the first part, I will talk about some aspects of prime ideals in commutative rings. In the second part, I will explain elements of Kanda's recently developed theory of atoms (in the mathematical sense - not in the sense of physics). The notion of atoms is a useful and interesting generalization of prime ideals to non-commutative rings (and to abelian categories). In the third part, I will briefly explain some joint work with R. H. Bak, on how to actually compute/determine the atoms for certain types of non-comutative rings.

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CONTATTI

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