



THE DEPARTMENT OF MATHEMATICAL SCIENCES PROUDLY PRESENTS

COLLOQUIUM

Spring 2023

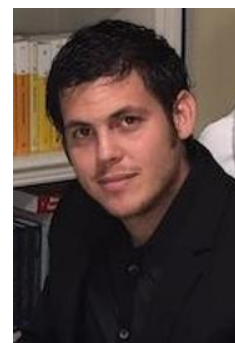
Atomicity and the Ascending Chain Condition on Principal Ideals

Dr. Felix Gotti

MIT

Feb-22-2023

5:00 pm



Abstract

An integral domain R is atomic if each nonzero nonunit of R factors into irreducibles. Also, an integral domain satisfies the ascending chain condition on principal ideals (ACCP) if every increasing sequence of principal ideals (under inclusion) becomes constant from one point on. Noetherian domains and Krull domains are important classes of integral domains satisfying the ACCP. It is well-known that every integral domain satisfying the ACCP is atomic. Examples of atomic domains that do not satisfy the ACCP are notoriously hard to construct. The first of such examples was constructed by A. Grams back in 1974. In this talk we will discuss some of the known constructions of atomic domains that do not satisfy the ACCP. Throughout the talk, we will also discuss the property of being atomic and that of satisfying the ACCP in the more general setting of commutative and cancellative monoids.

GRIC, Biblioteca RUM

Refrigerios, 15 minutos antes.

Join Zoom Meeting

<https://us02web.zoom.us/j/81148054497?pwd=Qmt6bIR1UURGdi9yM3E2YmM0UkxmZz09>

Meeting ID: 811 4805 4497

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