ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

Invitation to the Doctoral Seminar

Dr. Felix Gotti

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"On the Ascent of Atomicity to Monoid Algebras"

N.2.35 | Wednesday, 19 June 2024 | 10:00 a.m.

Abstract

Given a submonoid M of a torsion-free abelian group and a commutative ring R, the *monoid algebra* of M over R, denoted by $R[M]$, is the commutative ring consisting of all polynomial expressions with coefficients in R and exponents in M, with addition and multiplication defined as for polynomial rings. When R is an integral domain, $R[M]$ is also an integral domain. A commutative monoid (resp., an integral domain) is called *atomic* provided that each nonunit (resp., nonzero nonunit) factors into atoms (i.e., irreducibles). In this talk, we will discuss some recent progress on the ascent of atomicity and some related properties from the pair (M,R) to the monoid algebra $R[M]$.

Roswitha Rissner and the Department of Mathematics look forward to seeing you at the talk!