ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

INVITATION TO THE DOCTORAL SEMINAR

Unitary ideals of rings of integer-valued polynomials

Carmelo Antonio Finocchiaro | University of Catania

Chaired by Roswitha Rissner | Department of Mathematics

Wednesday, 4 June 2025 | 10:00–11:00

N.2.35

ABSTRACT

Let D be an integral domain with quotient field K. The following subring

$$\mathrm{Int}(D) := \{f \in K[T] \mid (f(D) \subseteq D\}$$

of $K[T]$ is usually called the *ring of integer-valued polynomials over* D. The ideal theory of this type of rings is quite fascinating and mysterious. We will concentrate our attention to the unitary ideals of $\mathrm{Int}(D)$, that is, ideals containing some nonzero constant. More precisely, when D is a Dedekind domain with finite residue field, we will fully describe in topological terms certain classes of radical unitary ideals of $\mathrm{Int}(D)$. Joint work with A. Loper.

We hope to see you there!