

**Algebraic ideas applied to the investigation of block monoids***Wolfgang A. Schmid* (KFU Graz)

MON/P3 15:30–15:50
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The block monoid associated to a Dedekind domain (or more generally a Krull monoid) is defined as the monoid of zero-sum sequences over a certain subset of the (divisor) class group. This notion allows to transfer questions on the arithmetic of Dedekind domains to questions on zero-sum sequences over abelian groups, which then can be investigated using, e.g., methods from additive number theory.

In this talk we discuss extensions of the notion of a class group and a block monoid of a Dedekind domain, which are obtained by investigating block monoids from an algebraic point of view. Moreover, we discuss applications to arithmetic problems, both from a conceptual and technical point of view.