

## Bart Van Steirteghem

**Title:** Weight monoids of smooth affine spherical varieties: characterization and computation

**Abstract:** Let  $G$  be a connected complex reductive group. About a decade ago, I. Loseu proved F. Knop's conjecture that a smooth affine spherical  $G$ -variety  $X$  is uniquely determined by its weight monoid, which is the set of irreducible representations of  $G$  that occur in the coordinate ring of  $X$ . I will discuss two approaches to a natural follow-up question: which monoids of dominant weights are realized in this way? This is joint work with G. Pezzini and F. Knop