Numerical semigroups and geometry of singularities

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The aim of this talk is to present a bridge between the theory of numerical semigroups and the geometry of complex singularities. The most classical and important problem in the theory of numerical semigroups is the determination of the (minimal set of) generators and also their Frobenius number. These are very difficult algebraic/combinatorial problems. In this talk we provide a new tool, based on techniques of singularity theory, which solves these problems for several semigroups (which can be related with singularities). By several examples we suggest how one of the two theories might provide meaningful and enriching questions, ideas and simultaneously powerful tools to the other. Joint work with A. Némethi.