A conjecture of Wilf on the Frobenius number.

The Frobenius number $F$ of given coprime positive integers $a_1 < \cdots < a_d$ is the largest integer which is not representable as a non-negative integer combination of the $a_i$’s. Let $n$ denote the number of integers less than $F$ admitting such a representation: Wilf conjectured in 1978 that $F+1 \leq nd$. The inequality has an interpretation in terms of one-dimensional local rings. We will discuss some recent progress on the conjecture, as well as some related problems. (Received August 12, 2014)