1147-20-880 **Maria Bras-Amoros*** (maria.bras@urv.cat). *On Numerical Semigroups.* Preliminary report.

A numerical semigroup is a subset of the positive integers ($\mathbb{N}$) together with 0, closed under addition, and with a finite complement in $\mathbb{N} \cup \{0\}$.

The number of gaps is its genus. Numerical semigroups arise in algebraic geometry, coding theory, privacy models, and in musical analysis. It has been shown that the sequence counting the number of semigroups of each given genus $g$, denoted $(n_g)_{g\geq 0}$, has a Fibonacci-like asymptotic behavior. It is still not proved that, for each $g$, $n_{g+2} \geq n_{g+1} + n_g$ or, even more simply, $n_{g+1} \geq n_g$.

We will explain some classical problems on numerical semigroups as well as some of their applications to other fields and we will explain the approach of counting semigroups by means of trees (Received January 29, 2019)