

1075-13-121

**Oana Veliche\*** ([o.veliche@neu.edu](mailto:o.veliche@neu.edu)), Northeastern University, Department of Mathematics, 360 Huntington Avenue, Boston, MA 02115. *On the index of numerical semigroup rings of embedding dimension three*. Preliminary report.

The index of a local Gorenstein ring  $(R, \mathfrak{m})$  was defined by Ding to be the minimum integer  $n \geq 1$  for which the Auslander's delta invariant of  $R/\mathfrak{m}^n$  is not zero. For a Gorenstein numerical semigroup ring of embedding dimension three, a complete formula of the index, in terms of the generators of the semigroup, is given. The talk will discuss the proof and some applications. (Received August 25, 2011)