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**Javier Arsuaga\***, jarsuaga@ucdavis.edu, and **Georgina Gonzalez** and **Sergio Ardanza-Trevijano**, sardanza@unav.es. *Analysis of cancer genomics data using computational topology: applications to breast cancer.*

Cancer genomes are characterized by their genomic instability and the presence of chromosome aberrations (i.e. morphological alterations of the genome). In our previous work we have shown that the  $\beta_0$  number can be used to identify copy number chromosome aberrations, such as amplifications and deletions, associated with the different molecular subtypes of breast cancer. In this work I will discuss the applications and interpretation of  $\beta_1$  in the identification of copy number changes in breast cancer with emphasis in aberrations found in the Her2 amplified subtype. (Received September 21, 2015)