1026-14-158 **Leonardo Constantin Mihalcea*** (lmihalce@math.duke.edu), Mathematics Department, Duke University, P.O. Box 90320, Durham, NC 27707, and **Paolo Aluffi**. *Chern-Schwartz-MacPherson classes for Schubert cells in the Grassmannian.*

The Chern-Schwartz-Macpherson (CSM) class of a possibly singular variety X is a characteristic class in the homology of X. If X is non-singular, this is the class associated to its tangent bundle.

More generally, one can associate a CSM class in the homology of X to any constructible subset of X. In joint work with Paolo Aluffi we have computed the CSM classes for the Schubert cells in the Grassmannian. Given that Schubert varieties are singular, an unexpected feature is a certain effectivity satisfied by these classes; we have proved it for small Grassmannians, and it is conjectured to hold in general. I will indicate a proof of the positivity based on non-intersecting lattice paths. (Received February 25, 2007)